PIONEER
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Service Manual

DEH-P825R/EW

ORDER NO.
CRT1805

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH RDS TUNER

DEH-P825R EW

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH ID-LOGIC TUNER

DEH-P825 UC

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH FM/AM TUNER

DEH-P823 ES

MULTI-CD CONTROL CD PLAYER WITH ID-LOGIC TUNER

DEX-P99 UC

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COMPACT disc DIGITAL AUDIO

NOTE:

- **See the service manual CX-597(CRT1811) for the CD mechanism description, disassembly and circuit description.**
- **The CD mechanism employed in this model is one of CX-597 series.**

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- **CD Player Service Precautions**

1. For pickup unit(CGY1070) handling,please refer to"Disassembly"(CX-597 Service Manual CRT1811). During replacement,handling precautions shall be taken to prevent an electrostatic discharge(protection by a short pin).
2. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 501 Orchard Road, #10-00, Lane Crawford Place, Singapore 0923

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1. SAFETY INFORMATION

1.1 (DEH-P825R/EW)

1. Safety Precautions for those who Service this Unit.

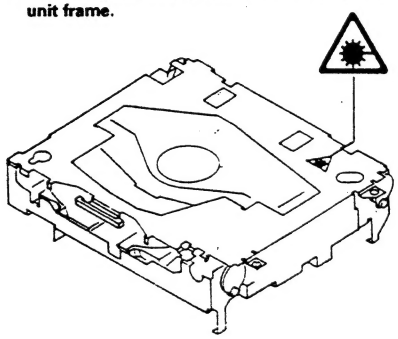
- **When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.**

Caution:

1. During repair or tests, minimum distance of 13cm from the focus lens must be kept.
2. During repair or tests, do not view laser beam for 10 seconds or longer.

2. A "CLASS 1 LASER PRODUCT" label is affixed to the rear of the player.

3. The triangular label is attached to the mechanism unit frame.



4. Specifications of Laser Diode

Specifications of laser radiation fields to which human access is possible during service.
Wavelength = 800 nanometers

1.2 (DEH-P825/UC,DEX-P99/UC)

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

2. SPECIFICATIONS

General (DEH-P825R/EW)

Power source ..... 14.4 V DC (10.8 — 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 8.0 A
Dimensions
(mounting size) ..... 178 (W) × 50 (H) × 157 (D) mm
(front face) ..... 188 (W) × 58 (H) × 16 (D) mm
Weight ..... 1.7 kg

General (DEH-P825/UC, P823/ES, DEX-P99/UC)

Power source ..... 14.4 V DC (10.8 — 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption (DEH-P825/UC, P823/ES) ..... 8.0 A
Max. current consumption (DEX-P99/UC) ..... 1.0 A
Dimensions
(DIN) (chassis) ..... 178 (W) × 50 (H) × 157 (D) mm
[7 (W) × 2 (H) × 6-1/8 (D) in.]
(nose) ..... 188 (W) × 58 (H) × 16 (D) mm
[7-3/8 (W) × 2-1/4 (H) × 5/8 (D) in.]
(D) (chassis) ..... 178 (W) × 50 (H) × 162 (D) mm
[7 (W) × 2 (H) × 6-3/8 (D) in.]
(nose) ..... 170 (W) × 46 (H) × 11 (D) mm
[6-3/4 (W) × 1-3/4 (H) × 3/8 (D) in.]
Weight (DEH-P825/UC, P823/ES) ..... 1.7 kg (3.7 lbs)
Weight (DEX-P99/UC) ..... 1.6 kg (3.5 lbs)

Amplifier (DEH-P825R/EW, P825/UC, P823/ES)

Continuous power output is 15 W per channel min. into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD (DEH-P825/UC, P823/ES).
Maximum power output ..... 35 W × 4
Continuous power output (DEH-P825R/EW) ..... 22 W × 4
(DIN45324, +B=14.4 V)
Load impedance ..... 4 Ω (4 — 8 Ω allowable)
Preout output level/output impedance ..... 500 mV/ 1 kΩ
Loudness contour ..... +10 dB (100 Hz), +7 dB (10 kHz)
(volume: –30 dB)

Amplifier (DEX-P99/UC)

Maximum preout output level ..... 4 V
Preout impedance ..... 1 kΩ
Loudness contour ..... +10 dB (100 Hz), +7 dB (10 kHz)
(volume: –30 dB)

Equalizer

Tone controls (parametric)
Frequency (Bass) ..... 50 Hz, 80 Hz, 125 Hz, 200 Hz
(Treble) ..... 3.15 kHz, 5 kHz, 8 kHz, 12.5 kHz
Equalization range ..... ±12 dB
Graphic Equalizer
Frequency ..... 50 Hz, 80 Hz, 125 Hz, 200 Hz, 315 Hz, 500 Hz, 800 Hz, 1.25 kHz, 2 kHz, 3.15 kHz, 5 kHz, 8 kHz, 12.5 kHz
Equalization range ..... ±12 dB
Sub-woofer output
Crossover frequency ..... 50 Hz, 80 Hz, 125 Hz
Crossover slope ..... –18 dB/oct

CD player

System ..... Compact disc audio system
Usable discs ..... Compact disc
Signal format ..... Sampling frequency: 44.1 kHz
Number of quantization bits: 16; linear
Frequency characteristics ..... 5 — 20,000 Hz (±1 dB)
Signal-to-noise ratio ..... 94 dB (1 kHz) (IHF-A network)
Dynamic range ..... 90 dB (1 kHz)
Number of channels ..... 2 (stereo)

AM Tuner (DEH-P825/UC, DEX-P99/UC)

Frequency range ..... 530 — 1,710 kHz
Usable sensitivity ..... 18 µV (25 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±10 kHz)

AM Tuner (DEH-P823/ES)

Frequency range ..... 530— 1,710 kHz (10 kHz)
531 — 1,602 kHz (9 kHz)
Usable sensitivity ..... 18 µV (25 dB) (S/N: 20dB)
Selectivity ..... 50 dB (±10 kHz)
50 dB (±9 kHz)

FM tuner

Frequency range (DEH-P825R/EW, P823/ES) ..... 87.5 — 108 MHz
Frequency range (DEH-P825/UC, DEX-P99/UC) ..... 87.9 — 107.9 MHz
Usable sensitivity ..... 11 dBf (1.0 µV/75Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity ..... 16 dBf (1.7 µV/75Ω, mono)
Signal-to-noise ratio ..... 70 dB (IHF-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 — 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)
Selectivity (DEH-P825/UC, DEX-P99/UC) ..... 70 dB (2ACA)
Three-signal intermodulation
(desire signal level) (DEH-P825/UC, DEX-P99/UC)
..... 50 dBf (two undesire signal level: 110 dBf)

MW tuner (DEH-P825R/EW)

Frequency range ..... 531 — 1,602 kHz
Usable sensitivity ..... 18 µV (25 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

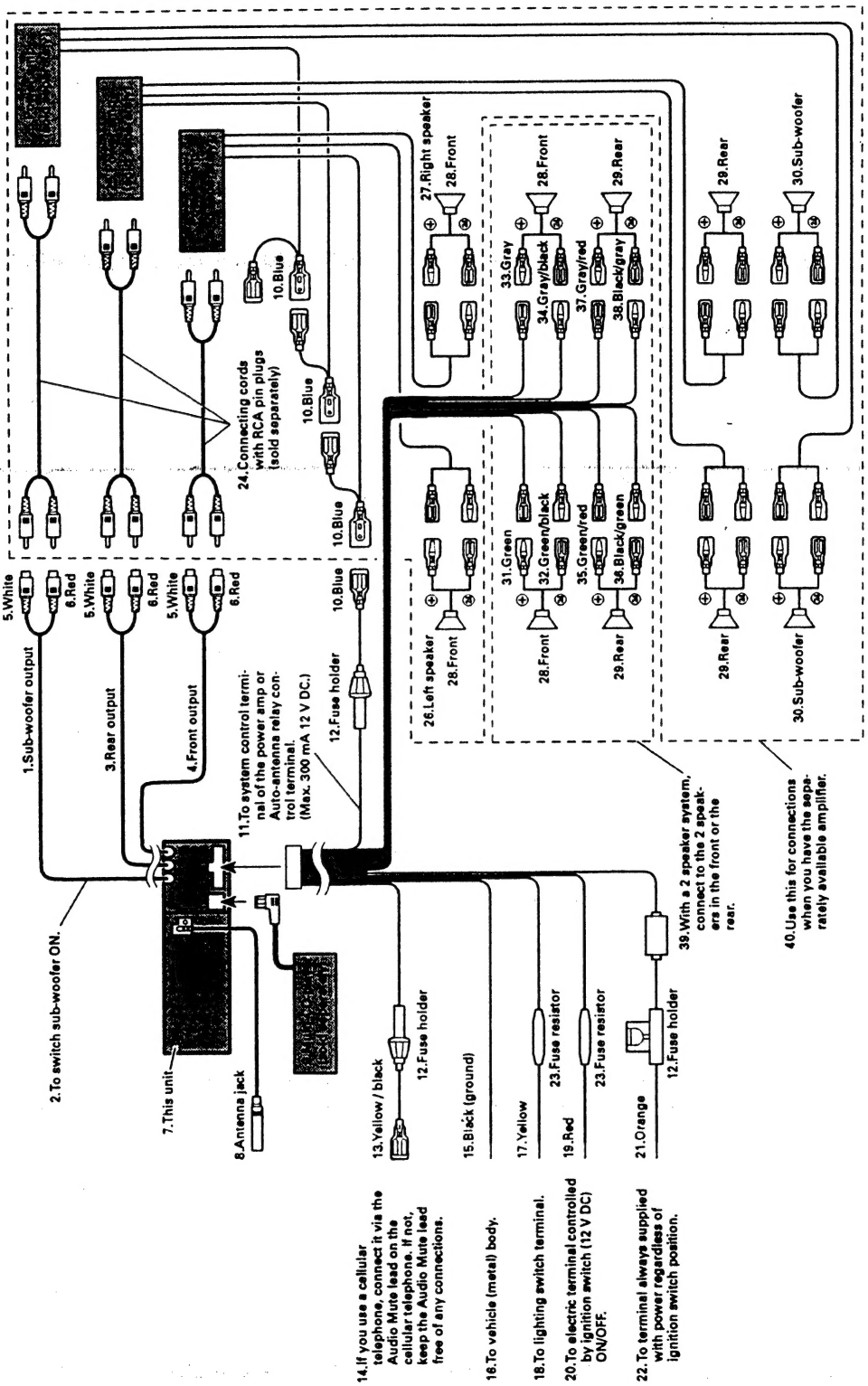
LW tuner (DEH-P825R/EW)

Frequency range ..... 153 — 281 kHz
Usable sensitivity ..... 30 µV (30 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

Note:
Specifications and the design are subject to possible modification without notice due to improvements.

3. OPERATIONS AND CONNECTION

● Connection Diagram



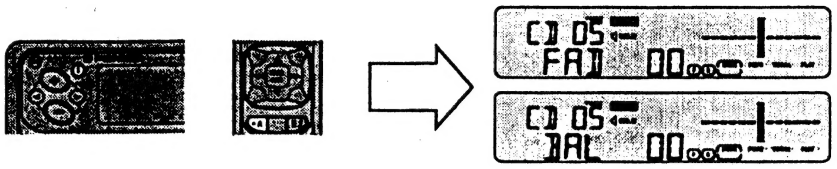
Audio Adjustment

Balance Adjustment

The function allows you to select a Fader/Balance setting that provides ideal listening conditions in all occupied seats.

1. **Press the Shift button once to select the Fader/Balance mode.**

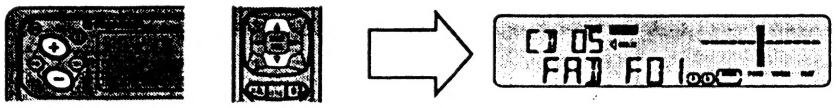
   "FAD" or "BAL" appears on the display. After adjustment use the Shift button to return to the normal display.



2. **Press the (+) or (▲) button or the (–) or (▼) button to shift the balance progressively to the front or rear speakers.**

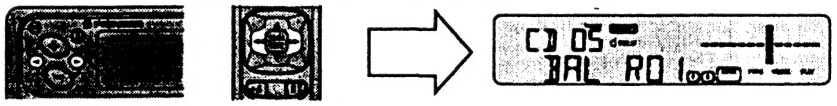
   "FAD F25" ~ "FAD R25" is displayed as it moves from front to rear.

   Note: "FAD 00" is the proper setting when 2 speakers are in use.



3. **Press the (◄) or (◄◄) button or the (►)or (►►) button to shift the balance to the left or right speaker, respectively.**

   "BAL L25" ~ "BAL R25" is displayed as it moves from left to right.

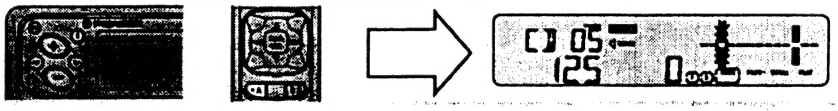


Parametric Bass/Treble Adjustment

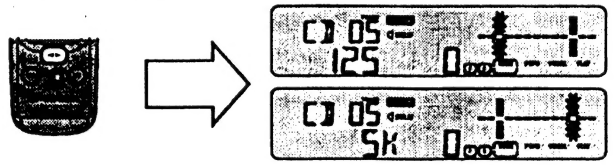
This tuner/CD player is equipped with two tone adjustment modes, the Bass Adjustment and Treble Adjustment modes. Each allows you to select one of four frequency levels: 50, 80, 125 or 200 Hz in the Bass Adjustment mode, and 3.2, 5, 8 or 12.5 kHz in the Treble Adjustment mode.

1. **Press the Shift button 2 times to select tone adjustment.**

   The selected frequency level is displayed. After adjustment use the Shift button to return to the normal display.

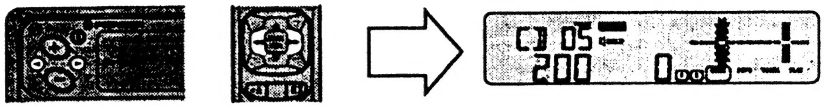


2. **Press the Band button to select "Bass Adjustment mode" or "Treble Adjustment mode."**

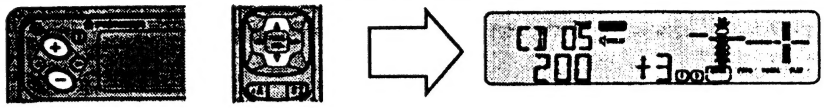


Audio Adjustment

3. **Press the (◄) or (◄◄) button or the (►) or (►►) button to decrease or increase frequency.**
   Stop when the desired frequency is selected.



4. **Press the (+) or (▲) button or the (–) or (▼) button, respectively, to increase or decrease the intensity of the bass or treble, whichever is selected.**
   The display shows "+6"—"–6".

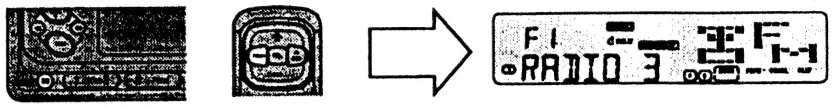


5. **Repeat steps 2-4 above for the other Bass or Treble Adjustment mode.**

Tuner Operation

Tuner Source and Band

- **Push the SO button or the TUNER button to select Tuner.**
  The program service name or frequency appears on the display.
  ("◯" indicator lights when stereo station selected.)

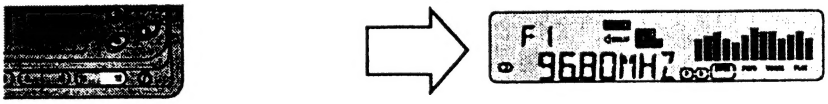


- **Use the Band button to select the desired band.**
  (F1, F2, MW/LW)

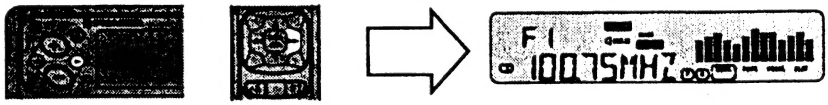
Manual and Seek Tuning

Both Manual (step-by-step) and Seek (automatic) tuning are available.

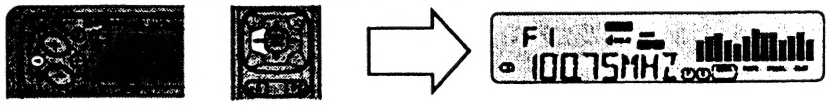
1. **Press button 12 for 2 seconds or longer to switch alternately between the Manual and Seek tuning modes.**
   The "MANU" indicator lights when Manual tuning is selected and turns OFF when Seek tuning is selected.



2. **Press the (►) or (►►) button to tune the receiver to a higher frequency.**
   MANU ON (Manual tuning):
   The frequency changes step by step.
   MANU OFF (Seek Tuning):
   The tuner automatically seeks out and receives broadcasting stations.



- **Press the (◄) or (◄◄) button to tune the receiver to a lower frequency.**

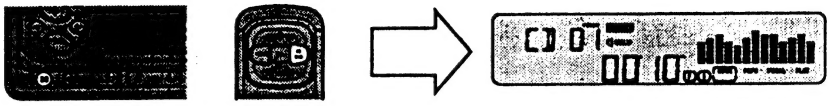


Using the Built-in CD Player

Playing the Built-in CD player

- **To play a CD that is already loaded, press the SO or CD/MCD button with a CD loaded to select the built-in CD player.**

  The built-in CD player is selected only when a CD is loaded.



Using Multi-CD Players

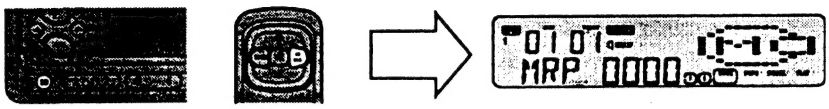
Multi-CD player operation

- **Press the SO button or the CD/MCD button to select the multi-CD player source.**

  The message "MRP" ("Multi-CD player repeat"), the multi-CD player, disc and track numbers, and the playback time are displayed.

  Notes:

  1. You cannot select the Multi-CD player source if no multi-CD player is installed or no magazine is loaded in an installed multi-CD player.
  2. The multi-CD player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
  3. If the multi-CD player cannot operate properly, an error message such as "ERROR-80" (No disc) is displayed.



4. DISASSEMBLY

● Removing the Case(not shown)

1. Remove the one screw.(Only DEX-P99/UC)
   Remove the two screws.(Except for DEX-P99/UC)
2. Insert and turn a flat screwdriver to remove the case.
3. Raise the case to remove.

● Removing the Detach Grille Assy(not shown)

1. Press the detach button.
2. Remove the detach grille assy.

● Removing the CD Mechanism Module(Fig.1)

1. Remove the four screws A.
2. Disconnect the two connectors C.
3. Remove the CD mechanism module.

● Removing the Panel Assy(Fig.1)

1. Remove the two screws B.
2. Disconnect the two connectors D.
3. Press the four stoppers at locations indicated by allows, and then pull out the panel assy.

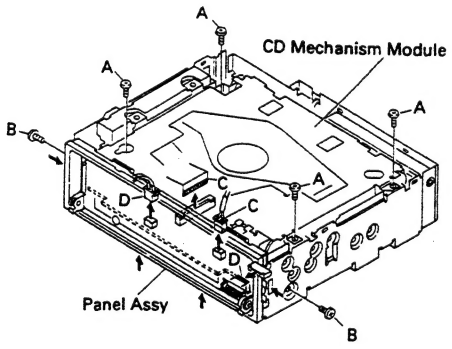


Fig.1

● Removing the Tuner Amp Unit(Fig.2)

1. Remove the two screws A, one screw B, one screw C, the three screws D, the holder and one screw E(only DEX-P99/UC).
2. Unbend the tabs at three locations indicated by arrows until straight.
3. Remove the tuner amp unit.

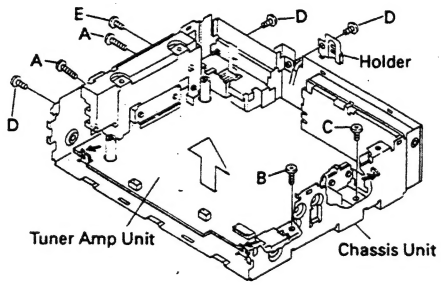


Fig.2

● Removing the Cover Unit(Fig.3)

1. Remove the four screws.
2. Press the three stoppers at locations indicated by allows, and then pull out the cover unit.

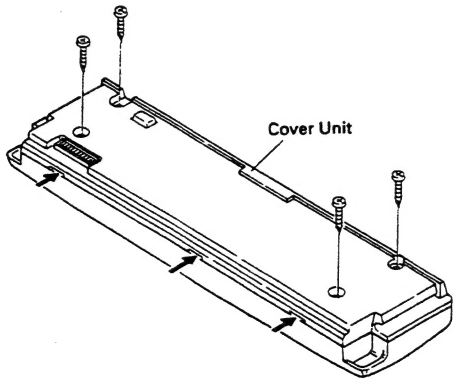


Fig.3

5. ADJUSTMENT

● **Connection Diagram**

NOTE:
Select C1 so that total capacity of 80pF is attained from the direction of the receiver jack.
Z: Output impedance of SSG.

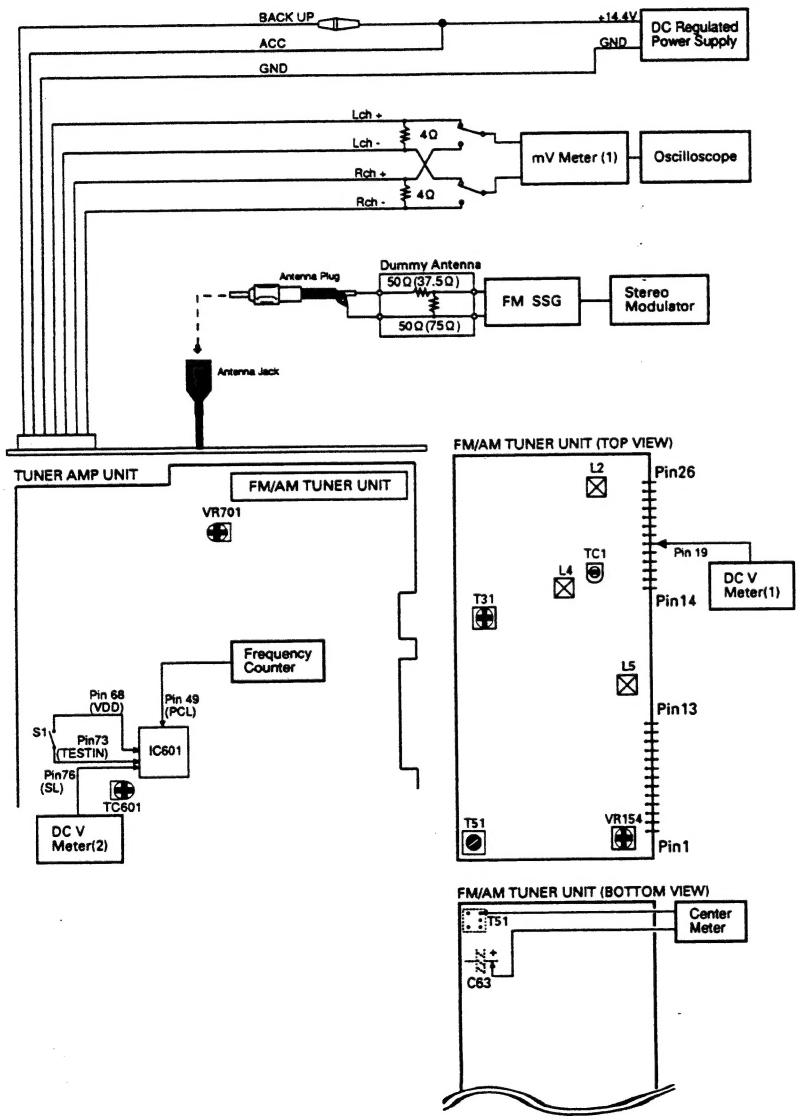


Fig.4

FM ADJUSTMENT(EW, ES MODEL)

Modulation M:MONO MOD., 400Hz 30%(22.5kHz Dev.)
S1:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)
S2:STEREO MOD., 1kHz, L or R=60%(40.50kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

		FM SSG		Displayed	Adjustment	Adjustment Method
	No.	Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
TUN Volt	1	*****	*****	108.0	L5	DC V Meter(1) : 6V
IF	1	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	1	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	1	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
Image	1	129.3 M	60—80	107.9	TC1	mV Meter(1) : Minimum
IFT	1	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	1	98.1 S1	39	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

FM ADJUSTMENT(UC MODEL)

		FM SSG		Displayed	Adjustment	Adjustment Method
	No.	Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
TUN Volt	1	*****	*****	107.9	L5	DC V Meter(1) : 6V
IF	1	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	1	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	1	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
IFT	1	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	1	98.1 S1	39	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

RDS SL ADJUSTMENT

		FM SSG		Displayed	Adjustment	Adjustment Method
	No.	Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
	1	104.0 S2	35	104.0	VR701	DC V Meter(2) : 1.75V±0.05V

CLOCK ADJUSTMENT

No.	Adjustment Point	Adjustment Method
1		S1 : ON
2	TC601	Frequency Counter : 1.048576MHz±2Hz

6. TEST MODE

6.1 TEST MODE

1)Precautions

· This unit uses a single power supply (+5V) for the regulator. The signal reference potential, therefore, is connected to REFO(approx. 2.5V) instead of GND.
If REFO and GND are connected to each other by mistake during adjustments, not only will it be impossible to measure the potential correctly, but the servo will malfunction and a severe shock will be applied to the pick-up. To avoid this, take special note of the following.
Do not connect the negative probe of the measuring equipment to REFO and GND together. It is especially important not to connect the channel 1 negative probe of the oscilloscope to REFO with the channel 2 negative probe connected to GND.
Since the frame of the measuring instrument is usually at the same potential as the negative probe, change the frame of the measuring instrument to floating status.
If by accident REFO comes in contact with GND, immediately switch the regulator or power OFF.

· Always make sure the regulator is OFF when connecting and disconnecting the various filters and wiring required for measurements.

· Before proceeding to further adjustments and measurements after switching regulator ON, let the player run for about one minute to allow the circuits to stabilize.

· Since the protective systems in the unit's software are rendered inoperative in test mode, be very careful to avoid mechanical and /or electrical shocks to the system when making adjustment.

· Test mode starting procedure
Switch ACC, back-up ON while pressing the 4 and 6 keys together.

· Test mode cancellation
Switch ACC, back-up OFF.

· Disc detection during loading and eject operations is performed by means of a photo transistor in this unit.Consequently, if the inside of the unit is exposed to a strong light source when the outer casing is removed for repairs or adjustment, the following malfunctions may occur.
*During PLAY, even if the eject button is pressed, the disc will not be ejected and the unit will remain in the PLAY mode.
*The unit will not load a disc.
When the unit malfunctions this way, either re-position the light source, move the unit or cover the photo transistor.

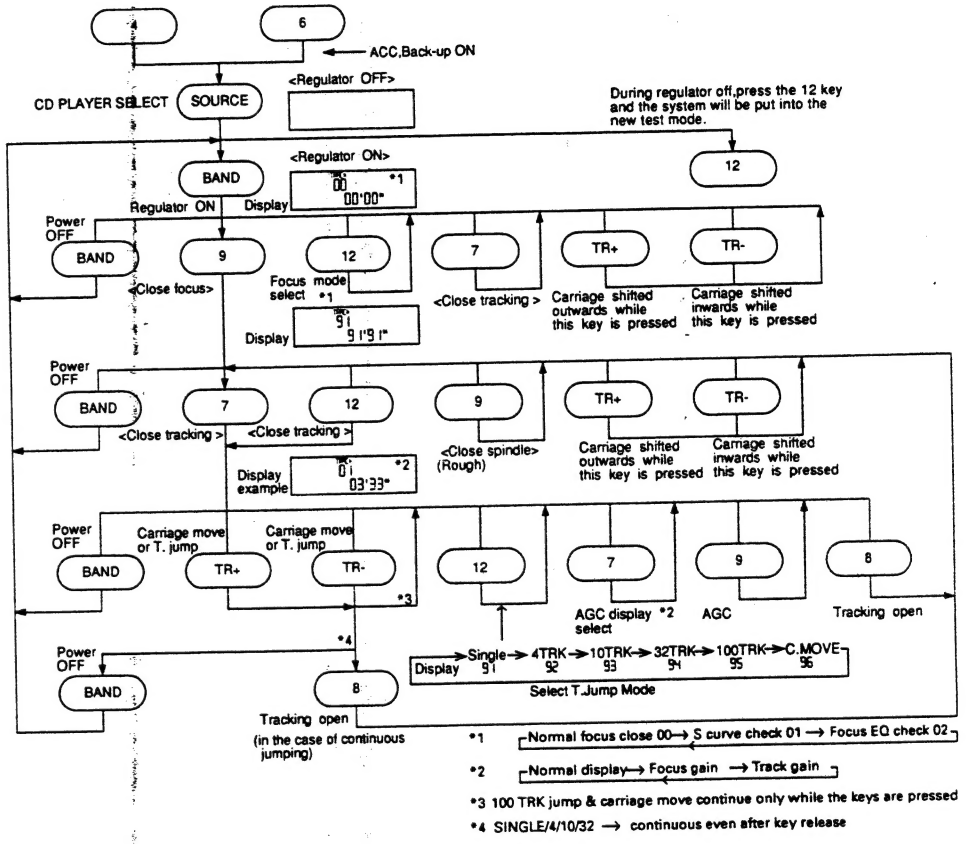
· When loading and unloading discs during adjustment procedures, always wait for the disc to be properly clamped or ejected before pressing another key. Otherwise, there is a risk of the actuator being destroyed.

· Turn power off when pressing the button TR+ or the button TR- key for focus search in the test mode. (Or else lens may stick and the actuator may be damaged.)

· SINGLE/4TRK/10TRK/32TRK will continue to operate even after the key is released.Tracking is closed the moment C-MOVE is released.

· JUMP MODE resets to SINGLE as soon as power is switched off.

● Flow Chart



6.2 ERROR NUMBERS AND NEW TEST MODE

● Error Number Indication

If the CD should fail to operate or if an error has taken place during operation the player will enter into the error mode, and the cause of the error will be numerically indicated.

This is aimed at assisting in analysis or repair.

(1) Basic Means of Display

·With ERROR indicated in "MODE" on IP-BUS Display data, an error code is transmitted by the use of MIN and SEC. The MIN and SEC data will be identical.

·Examples of Display ERROR-XX

(2) Error Codes

Error Code	Classification	Description	Cause/Detail
10	ELECTRIC	Carriage home failure	Carriage doesn't move to or from the innermost position →Home switch failed and/or carriage immobile
11	ELECTRIC	Focus failure	Focus failed →Defects, disc upside-down, severe vibration
12	ELECTRIC	SETUP failure Subcode failure	Spindle failed to lock or subcode unreadable →Spindle defective, defect, severe vibration
14	ELECTRIC	Mirror failure	Unrecorded CD-R The disc is upside-down, defects, vibration
17	ELECTRIC	Set up failure	AGC protect failed →Defects, disc upside-down, severe vibration
30	ELECTRIC	Search time out	Failed to reach target address →Carriage/tracking defective and/or defects
A0	SYSTEM	Power failure	Power overvoltage or short circuit detected →Switching transistor defective and/or power abnormal

"defects" means scratches, dirt etc an the surface of the disc.

● New Test Mode(aging operation and setup analysis)

The single CD player plays in normal mode. After being set up, it will display FOK (focus), LOCK (spindle), subcode, sound skip, protection against a mechanical error or the like, occurrence of an error, cause and time of an expiry, if any, (and disc number).

During the setup, the CD software operation status (internal RAM and C-point)is displayed.

(1) How to enter NEW TEST Mode

See the test mode flow chart Page 13.

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(2) Relations of keys between TEST and NEW TEST Modes

Keys	Test Mode		New Test Mode	
	Regulator OFF	Regulator ON	PLAY in progress	Error Occurred, Protection Activated
BAND	Regulator ON	Regulator OFF	—	Time of occurrence / cause of error select
TR+	—	FWD-KICK	TRACK+ / FF	—
TR-	—	REV-KICK	TRACK- / REV	—
7	—	TRACKING CLOSE	SCAN	—
8	—	TRACKING OPEN	MODE	—
9	—	FOCUS CLOSE	ITP	—
12	To New Test Mode Select	FOCUS MODE	AUTO/MANU	—

Operations, such as EJECT, CD ON/OFF, etc. are performed normally.

(3) Error Cause (Error Number) Code

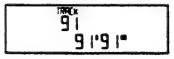
Error Code	Classification	Mode	Description	Cause	Detail
40	ELECTRIC	PLAY	FOK=L 100ms	Put out of focus	Scratch, Stain, Vibration, Servo defect, etc...
41	ELECTRIC	PLAY	LOCK=L 100ms	Spindle unlock	
42	ELECTRIC	PLAY	Subcode unacceptable 500ms	Failed to read subcode	
43	ELECTRIC	PLAY	Sound skipped	Last address memory operated	

(4) Indicating an Operation Status During Setup

Status No.	Description	Protection operation
01	Carriage home mode started	None
02	Carriage moving inwards	10-second time out, Home switch failed
03	Carriage moving outwards	10-second time out, Home switch failed
05	Carriage moving outwards	None
11	Setup started	None
12	Spindle turn/Focus search started	None
13	Waiting for focus closure (XSI=L)	Failure to close focus
10,14	Waiting for focus closure (FOK=H)	Failure to close focus
15, 16, 17	Focus closed, Tracking open	Focus disrupted
18	During focus AGC Subcode waiting	Focus disrupted
19	During tracking AGC	Disrupted focus
20	Waiting for MIRR, LOCK or subcode read Carriage closed, SPINDLE=ADAPTIVE	Focus disrupted, MIRR NG, Failure to lock, Failed to read subcode

(5) Example of Display.

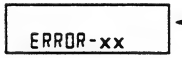
·SET UP in progress



·Operation (PLAY, SEARCH, etc.) in progress perfectly identical with that in the normal mode.

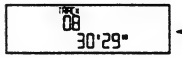
·Protection/Error upon occurrence

(a) Error number indicated



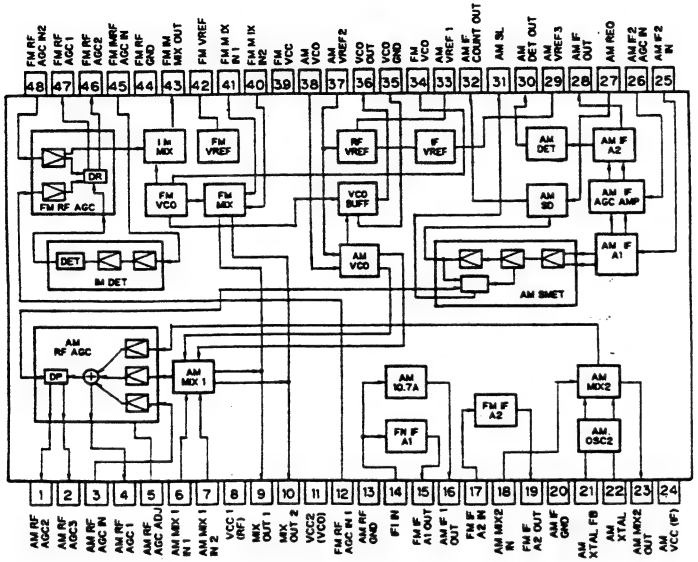
Select the display with the BAND key.

(b) Track number and absolute time indicated



7. IC INFORMATION

PA4023A



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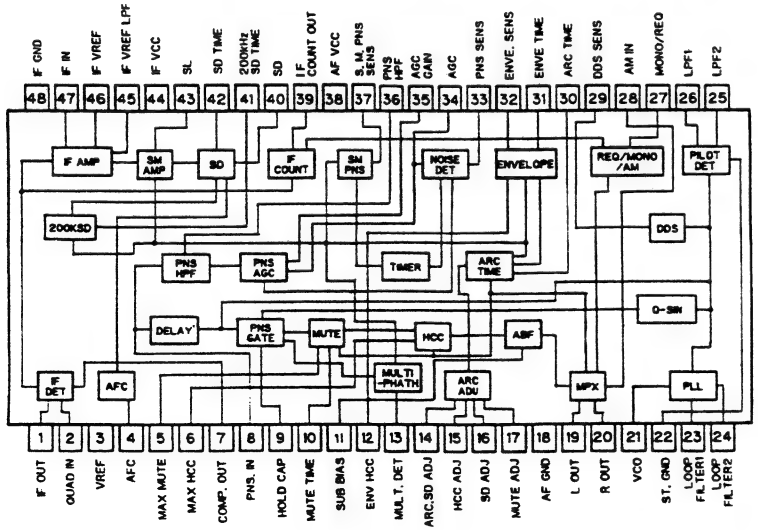

● **Pin Functions(PD4629A, PD4630A)**

Pin No.	Pin Name	I/O	Format	Function and Operation
1-3	NC			Not used
4	AVSS			GND
5,6	NC			Not used
7	AVREF0			GND
8	KYDT	I		Key data input
9	DPDT	O	C	Display data output
10	$\overline{\text{SWVDD}}$	O	C	Grille micro computer power supply control output
11	RIDDI	I		RDS/ID LOGIC data input
12	RIDDO	O	C	RDS/ID LOGIC data output
13	$\overline{\text{RIDCK}}$	O	C	RDS/ID LOGIC clock output
14	$\overline{\text{BRST}}$	O	C	P-BUS reset output
15	$\overline{\text{BRXEN}}$	O	C	P-BUS enable output
16	$\overline{\text{BSRQ}}$	I	C	P-BUS request input
17	BSIO	I/O	C	P-BUS data input/output
18	$\overline{\text{BSCK}}$	I/O	C	P-BUS clock input/output
19	$\overline{\text{RIDRST}}$	O	C	RDS/ID LOGIC reset output
20	RIDSEL	O	C	RDS/ID LOGIC select output
21-24	NC			Not used
25,26	SOR0,1	O	C	Source select output
27	ST	I		Stereo input
28	SD	I		FMSD input
29	PDI	I		PLL data input
30	PCK	O	C	PLL clock output
31	PDO	O	C	PLL data output
32	PCE	O	C	PLL chip enable output
33	VSS			GND
34	NC			Not used
35	NC			Not used
36	NC			Not used
37	$\overline{\text{ALLED}}$	O	N	Detach alarm LED output
38	CDPW	O	N	Power supply select output
39	$\overline{\text{TMUTE}}$	O	N	Tuner mute output
40	$\overline{\text{BUSMUTE}}$	O	C	IP-BUS mute output
41	ASENBO	O	C	ACC output for IP-BUS
42	MUTRQ	I		Mute request from DSP
43	BMUTIN	I		Mute request from CDS micro computer
44	NC			Not used
45	PEE	O	C	Beep tone output
46	DOORSYS	O	C	Detach alarm system select output
47	SYSPW	O	C	System power output
48	MUTE	O	C	Mute output
49	PCL	O	C	Clock adjustment output
50	LCDPW	O	C	Back light control output
51	DIM	O	C	Dimmer output
52	ILMPW	O	C	Illumination power supply control output
53	$\overline{\text{CSENS}}$	I		Flap close sense input
54	$\overline{\text{ISENS}}$	I		Illumination sense input
55	$\overline{\text{IPPW}}$	I		IP-BUS driver power supply control input
56	TX	O	C	IP-BUS data output
57	RX	I		IP-BUS data input
58	ALON	O	C	Relay output for detach alarm horn
59	DOORSENS	I		Detach alarm door open/close sense input
60	RESET	O	C	Reset output
61	TELIN	I		Telephone mute input
62	$\overline{\text{BSENS}}$	I		Back up sense input
63	$\overline{\text{ASENS}}$	I		ACC sense input
64	$\overline{\text{DSENS}}$	I		Grille detach sense input
65	RIDRDY	I		RDS/ID-LOGIC ready input

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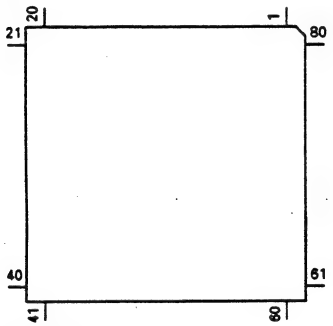
Pin No.	Pin Name	I/O	Format	Function and Operation
66,67	NC			Not used
68	VDD			Power supply
69	X2	O	C	Crystal oscillator connection pin
70	X1	I		Crystal oscillator connection pin
71	IC			GND
72	XT2			Not used
73	TESTIN	I		Test program mode input
74	AVDD	I		A/D converter analog power supply
75	NC			Not used
76	SL	I		Signal level input
77-79	SEL0,2	I		Forwarding input
80	NC			Not used

Format	Meaning
C	C MOS
N	N channel open drain

IC's marked by are MOS type.*
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

*PD4629A, PD4630A



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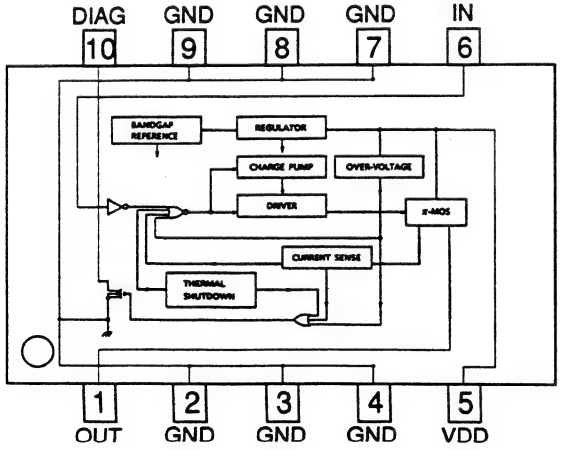
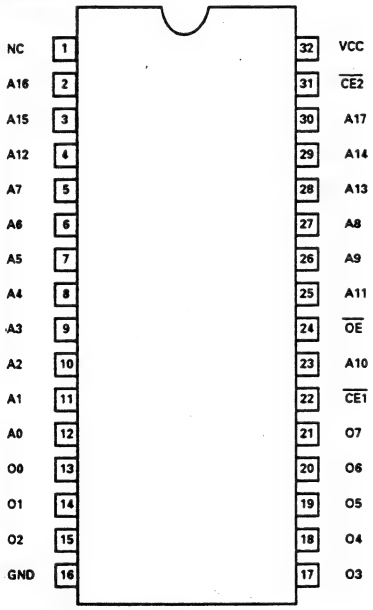


PD4633A

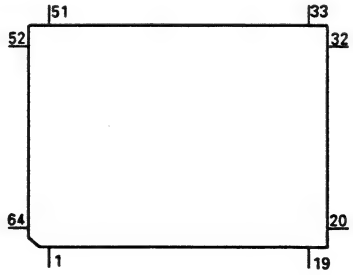


A0-A17:Address input
O0-O7 :Data output
CE1,2 :Chip enable input
OE :Output enable input

● **Pin Functions(PD6164A)**

Pin No.	Pin Name	I/O	Format	Function and Operation
1	PCK	O	N	PLL Communication clock output
2	PDO	O	N	PLL Communication data output
3	PDI	I		PLL Communication data input
4	SL	I		Signal level input
5	NL	I		Noise level input
6	TRGL			Pull down connect terminal
7	SOUND	I		A sound signal for distinguish a same program
8	RMUTE	O	N	RDS mute output
9-11	NC			Not used
12	AVCC			5V power supply
13	AVR			5V power supply
14	AVSS			GND
15	IRSEL	I		Micro computer select input
16	RCK	I		RDS demodulation clock input
17	RDT	I		RDS demodulation data input
18	LDET	I		PLL lock detect input
19	RDSLK	I		RDSLK signal input
20	IRRST	I		Micro computer reset input
21,22	MOD0,1			GND
23	XIN	I		Crystal oscillating element connection pin
24	XOUT	O	C	Crystal oscillating element connection pin
25	VSS			GND
26	DRST	O	C	Decoder reset output
27	L/S	O	C	Output for select sensitivity of noise level
28	CURRQ	O	C	PLL-TV-Fix output
29	IRRDY	O	C	Communication ready output
30–49	NC			Not used
50	VSS			GND
51	TEST	I		Test program input
52	IRCK	I		Communication clock input
53	IRDO	O	C	Communication data output
54	IRDI	I		Communication data input
55	PCE	O	C	PLL Communication enable output
56	GD	O	C	Tuner unit gate drive control output
57	VCC			5V power supply
58	SD	I		SD signal input
59	MDSENS	I		Modulation detect input
60–64	NC			Not used

*PD6164A

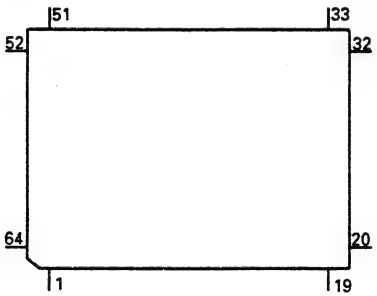


Format	Meaning
C	C MOS
N	N channel open drain

● **Pin Functions(PD6165A)**

Pin No.	Pin Name	I/O	Format	Function and Operation
1–8	NC			Not used
9-11	ADD13-15	O	N	ROM Adress 13-15
12	AVCC			5V power supply
13	AVR			5V power supply
14	AVSS			GND
15	$\overline{\text{IRSEL}}$	I		Select input
16–19	NC			Not used
20	$\overline{\text{IRRST}}$	I		Reset input
21,22	MOD0,1			GND
23	XIN	I		Crystal oscillating element connection pin
24	XOUT	O		Crystal oscillating element connection pin
25	VSS			GND
26-28	NC			Not used
29	IRRDY	O	C	Communication ready output
30	$\overline{\text{OE}}$	O	C	ROM output control
31	$\overline{\text{ROMEN}}$	O	C	ROM enable
32,33	ADD17,16	O	C	ROM adress 17,16
34-41	ADD7-0	O	C	ROM adress 7-0
42-49	DT7-0	I		ROM data input 7-0
50	VSS			GND
51	TEST	I		Test program input
52	$\overline{\text{IRSCK}}$	I		Communication clock input
53	IRDO	O	C	Communication data output
54	IRDI	I		Communication data input
55,56	NC			Not used
57	VCC			5V power supply
58,59	NC			Not used
60-64	ADD8-12	O	N	ROM adress 8-12

*PD6165A



Format	Meaning
C	C MOS
N	N channel open drain

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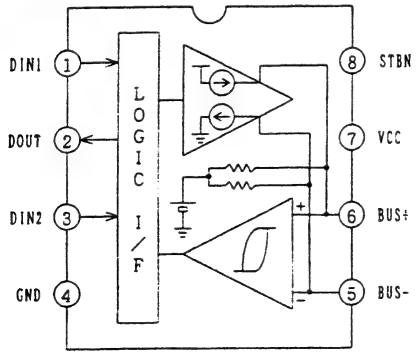


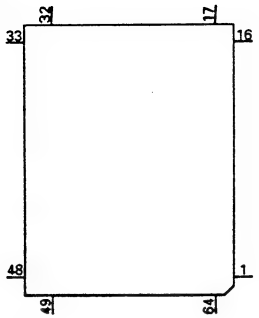
DEH-P825R,P825,P823,DEX-P99

● **Pin Functions(PD4623A)**

Pin No.	Pin Name	I/O	Format	Function and Operation
1	NC			Not used
2	$\overline{\text{XRST}}$	O	C	CD LSI reset output
3,4	NC			Not used
5	CBNK0	O	C	DSP bank for compressor set up output 0
6	NC			Not used
7	$\overline{\text{HOME}}$	I		Carriage home position detector input
8	$\overline{\text{CLAMP}}$	I		Disc clamp sense input
9	VSS			GND
10	NC			Not used
11	CDEJET	O	C	Loading motor eject control output
12	LOAD	O	C	Loading motor load control output
13	CONT	O	C	Servo driver power supply control output
14	NC			Not used
15	CDMUTE	O	C	CD mute control output
16	DEEM	O	C	Emphasis control output
17	$\overline{\text{ADENA}}$	O	C	A/D reference voltage control output
18–23	NC			Not used
24	VSS			GND
25	NC			Not used
26	BMUTE	O	C	Bus mute output
27–30	NC			Not used
31	$\overline{\text{BRXEN}}$	I/O	C	P-BUS reception enable input/output
32	$\overline{\text{BSRQ}}$	O	C	P-BUS serial pole request output
33	VDCONT	O	C	VD power supply control output
34	CD5VON	O	C	CD +5V power supply control output
35	$\overline{\text{RESET}}$	I		Reset input
36	TXARI			+5V
37	$\overline{\text{CSENS}}$	I		Flap close sense input
38	$\overline{\text{BRST}}$	I		P-BUS reset input
39	CMPARI	I		VSS
40	VDD			+5V
41	X2	O		Crystal oscillator connection pin
42	X1	I		Crystal oscillator connection pin
43	IC			GND
44	NC			Not used
45	$\overline{\text{TESTIN}}$	I		Test program start input
46	AVSS			A/D GND
47	TEMP	I		Temperature detector input
48	VDSENS	I		VD power supply detector input
49	EJTD	I		Disc eject position sense input
50	DINC	I		Disc insert sense input
51	NC			Not used
52	FOK	I		Focus OK signal input
53	MIRR	I		Mirror detector input
54	LOCK	I		Spindle lock detector input
55	AVDD			A/D analog power supply
56	AVREF	I		A/D converter reference voltage input
57	XSI	I		CD LSI serial data input
58	XSO	O	C	CD LSI serial data output
59	XSCK	O	C	CD LSI serial clock output
60	$\overline{\text{XSTB}}$	O	C	CD LSI strobe output
61	XA0	O	C	Output for control signal distinguishing CD LSI data
62	VSS			GND
63	BDATA	I/O	C	P–BUS serial data input/output
64	$\overline{\text{BSCK}}$	I/O	C	P-BUS serial clock input/output

Format	Meaning
C	C MOS

*PD4623A



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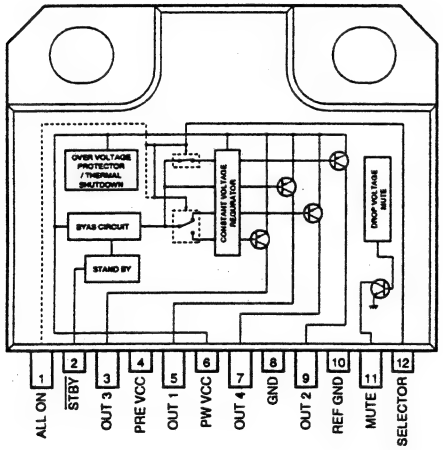

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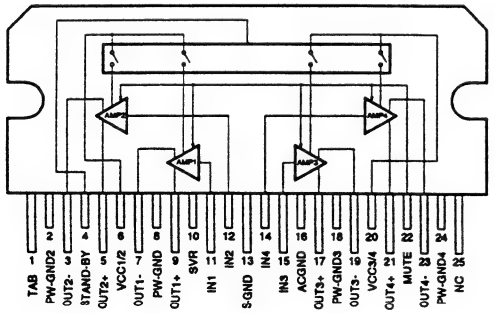

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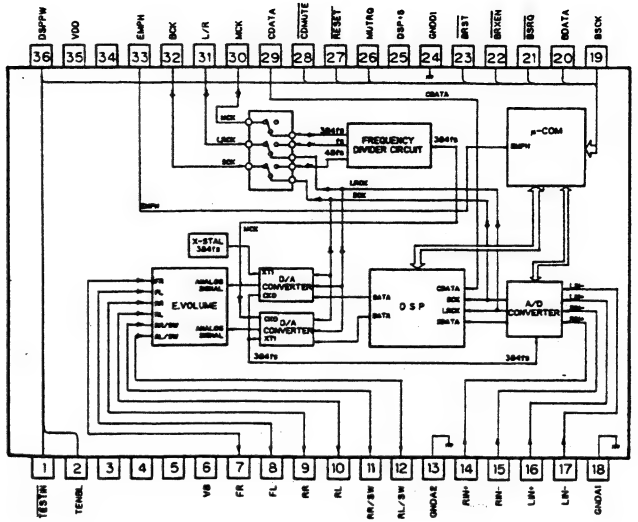

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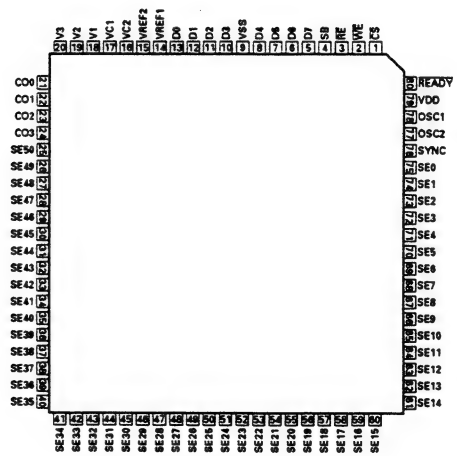

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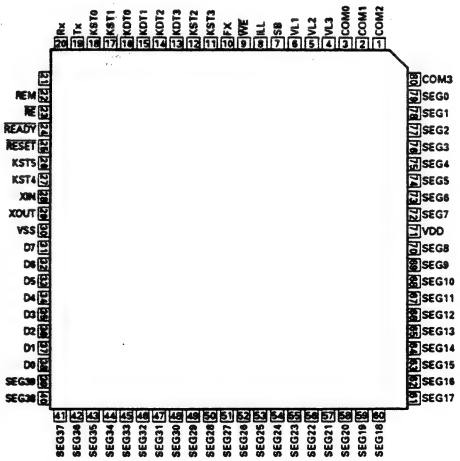
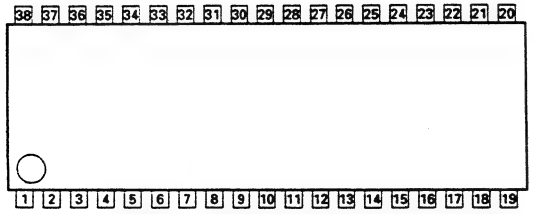


DEH-P825R,P825,P823,DEX-P99

● **Pin Functions (UPC2572GS)**

Pin No.	Pin Name	I/O	Function and Operation
1	EFM-IN	I	EFM comparator input
2	AGC-OUT	O	AGC amplifier output
3	C. AGC		Connects AGC peak detection condenser
4	RF-IN	I	RF signal DC component cut input
5	RF-OUT	O	RF amplifier output
6	RF-	I	RF amplifier inverted input
7	C1, 3T		Connects RF3T component detection condenser
8	C2, 3T		Connects RF3T component detection condenser
9	Vcc		Power supply
10	A	I	A signal input
11	C	I	C signal input
12	B	I	B signal input
13	D	I	D signal input
14	F	I	F signal input
15	E	I	E signal input
16	PD	I	APC amplifier input
17	LD	O	APC amplifier output
18	LDON	I	Laser diode ON/OFF input
19	VREF-OUT	O	Reference voltage output
20	VREF-IN	I	Reference voltage input
21	DET-OUT	O	Vibration detection circuit output
22	DET-IN	I	Vibration detection circuit input
23	TE-OUT2	O	Tracking error amplifier output (fourfold gain)
24	TE-OUT1	O	Tracking error amplifier output (singlefold gain)
25	TE-	I	Tracking error amplifier inverted input
26	GND		GND
27	FE-	I	Focus error amplifier inverted input
28	FE-OUT	O	Focus error amplifier output
29	C.FE	I	Focus error signal DC component cut input
30	3T-OUT	O	RF3T component output
31	MIRR	O	MIRR signal output
32	RFOK	O	RFOK signal output
33	DEFECT	O	DEFECT signal output
34	C. DEF		Connects DEFECT signal detection condenser
35	EFM-OUT	O	EFM comparator output
36	ASY	I	EFM comparator level input
37	TE-BAL	I	Tracking balance control
38	FE-BAL	I	Focus balance control

UPC2572GS



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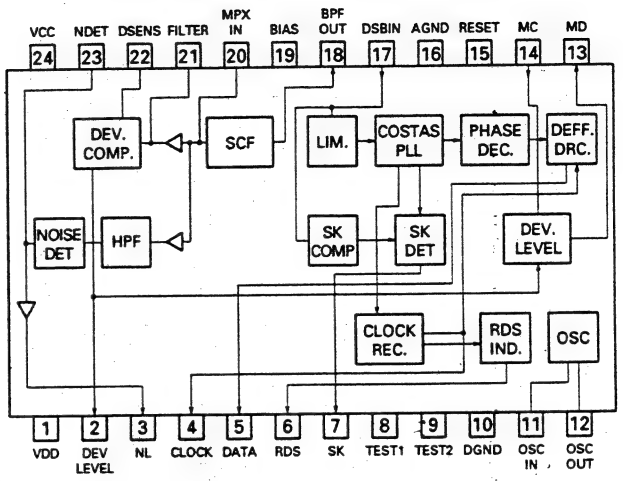
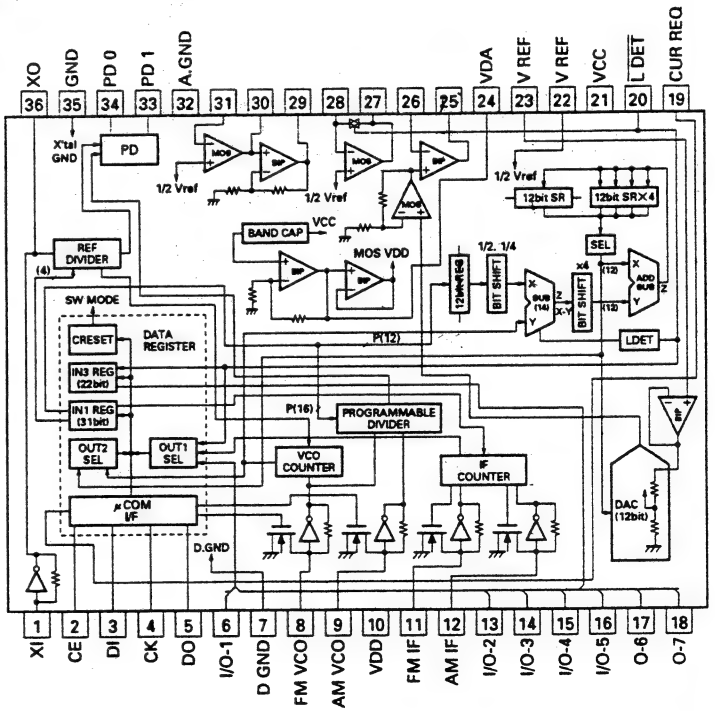


*PM2004A



DEH-P825R,P825,P823,DEX-P99

● **Pin Functions (UPD63702GF)**

Pin No.	Pin Name	I/O	Function and Operation
1	D.VDD		Supplies current of positive voltage to the logic circuits
2	$\overline{RST}$	I	System reset input pin
3	AO	I	Microcomputer interface AO="L": $\overline{STB}$ active and set to address register AO="H": $\overline{STB}$ active and set to parameter
4	$\overline{STB}$	I	Signal to latch serial data within the LSI
5	$\overline{SCK}$	I	Clock input pin to input and output serial data
6	SO	O	Outputs serial data and status signal
7	SI	I	Serial data input pin
8	D.GND		Logic circuit GND
9	X.GND		Crystal oscillation circuit GND
10	XTAL	I	Crystal oscillator connection pin
11	$\overline{XTAL}$	O	Crystal oscillator connection pin
12	X.VDD		Supplies current of positive voltage to the crystal oscillation circuit
13	DA.VDD		Supplies current of positive voltage to the D/A converter
14	R+	O	Right channel analog audio data output pin
15	R-	O	Right channel analog audio data output pin
16,17	DA.GND		D/A converter GND
18	L-	O	Left channel analog audio data output pin
19	L+	O	Left channel analog audio data output pin
20	DA.VDD		Supplies current of positive voltage to the D/A converter
21	D.VDD		Supplies current of positive voltage to logic circuit
22	FLAG	O	Flag output pin to indicate that audio data currently being output consists of noncorrectable data
23	WDCK	O	Pin to output double the frequency of LRCK
24	C16M	O	Pin to output the clock
25	EMPH	O	Output pin for the pre-emphasis data in the sub-Q code
26	DIN	I	Input pin for serial audio data
27	DOUT	O	Output pin for the serial audio data
28	SCKO	O	Output pin for the clock for the serial audio data
29	LRCK	O	Signals to distinguish the right and left channels of the audio data output from DOUT. Frequency is 44.1kHz at 50% duty at normal regeneration
30	TX	O	Output pin for the digital audio interface data
31	CTLV	I	Oscillation control pin for high-frequency clock generation VCO used for the digital PLL upon regeneration at fast speed of 2- or 4-fold
32	POUT	O	Output point for phase comparison
33	D.GND		GND for the logic circuit
34	VCO	I	Input pin for the inverter
35	$\overline{VCO}$	O	Output pin for the inverter
36	D.VDD		Supplies current of positive voltage to the logic circuit
37	PLCK	O	Pin for monitoring the bit clock
38	LOCK	O	Indicates "H" when the synchronized pattern detection signal matches the frame counter output at the EFM recovery modulation, and "L" when they don't match
39	WFCK	O	Minute-cycle signal for the bit clock, the signal indicates the cycle of 1 frame (approx. 7.35kHz)
40	RFCK	O	Minute-cycle signal for the clock, the signal indicates cycle of 1 frame (approx. 7.35kHz)
41	D.GND		GND for the logic circuit
42,43	TEST0,1	I	Test pins
44,45	TM2, TM4	I	Pins for controlling regeneration at fast speed of 2- or 4-fold
46-49	T4-T7	I	Test pins
50,51	C1D1, C1D2	O	Output pin for indicating the C1 error correction results
52-54	C2D1-C2D3	O	Output pin for indicating the C2 error correction results
55	D.VDD		Supplies current of positive voltage to the logic circuit
56	SFSY	O	Outputs 1 word of the subcode. Generally, 1 cycle is approx 136 micro seconds
57	SBSY	O	The signal indicates the beginning of the subcode block. The SFSY signal is output at high level every 98 times
58	SBSO	O	Output pin for the subcode data
59	SBCK	I	Input pin for the clock signal for read-out of the subcode data
60	A.GND		GND for the analog circuit
61	MD	O	Output pin for the spindle drive
62	SD	O	Output pin for the sled drive
63	TD	O	Output pin for the tracking drive
64	FD	O	Output pin for the focus drive
65	FBAL	O	Output pin for the focus balance control
66	TBAL	O	Output pin for the tracking balance control
67	A.VDD		Supplies current of positive voltage to the analog circuit
68	TBC	I	Switches coefficient banks for the tracking filter
69	EFM	I	Input pin for the EFM signal
70	HOLD	I	Input pin for the hold control signal
71	RFOK	I	Input pin for the RFOK signal
72	MIRR	I	Input pin for the MIRR signal
73	A.GND		GND for the analog circuit
74,75	VR2,1	I	The signal input through these pins is digitized to 8-bit by the A/D converter, which by operation of the assigned register, can be read into the microcomputer
76	FE	I	Inputs a focus-error signal from the RF amplifier
77	TE	I	Inputs a tracking-error signal from the RF amplifier
78	TEC	I	Input pin for the tracking comparator
79	REFOUT	O	Output point for midpoint potential for the A/D converter for the LSI portion
80	A.VDD		Supplies current of accurate voltage to the analog circuit

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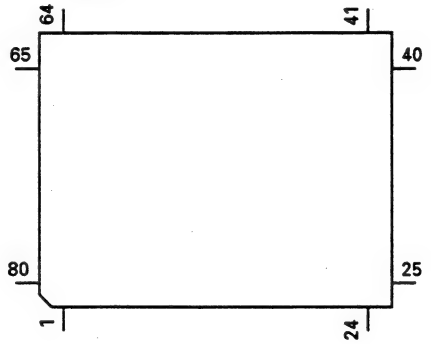
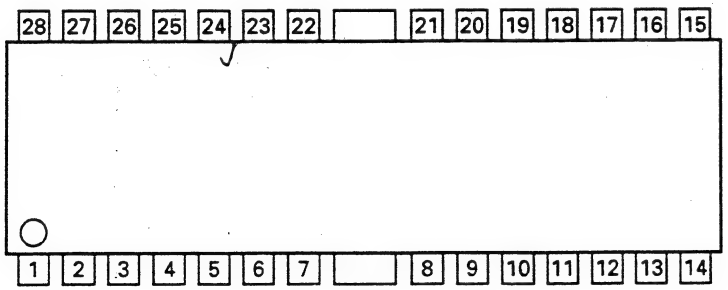


● **Pin Functions (XLA6997FP)**

Pin No.	Pin Name	I/O	Function and Operation
1	OUT1-A	O	CH1 driver output
2	OUT1-B	O	CH1 driver output
3	IN1	I	CH1 input
4	IN1'	I	CH1 gain adjustment input
5	REG-B		PowTr base connection pin for regulator
6	REG OUT	O	Regulator output PowTr collector connection pin
7	REG GND		Regulator GND/Common circuit GND
8	BIAS	I	BIAS input
9	MUTE		Mute control pin
10	REG SW		Regulator switch pin
11	TEMP MON		Humidity monitor pin
12	IN2	I	CH2 input
13	OUT2-B	O	CH2 driver output
14	OUT2-A	O	CH2 driver output
15	GND		GND
16	OUT3-A	O	CH3 driver output
17	OUT3-B	O	CH3 driver output
18	IN3''		CH3 gain adjustment pin
19	IN3'		CH3 gain adjustment pin
20	IN3	I	CH3 input
21,22	VCC		VCC
23	IN4	I	CH4 input
24	IN4'		CH4 gain adjustment pin
25	IN4''		CH4 gain adjustment pin
26	OUT4-B	O	CH4 driver output
27	OUT4-A	O	CH4 driver output
28	GND		GND

XLA6997FP



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8. ELECTRICAL PARTS LIST

NOTES:

● Parts whose parts numbers are omitted are subject to being not supplied.

● The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

=====Circuit Symbol & No. Part Name=====		Part No.
Key Board Unit Consists of Key Board P.C.Board Switch P.C.Board		
Unit Number : CWM4471		
Unit Name : Key Board Unit		
MISCELLANEOUS		
IC 901		PD5342A
IC 902		HD61602RH
IC 905		RS-30
Q 903		2SC2712
D 4901 4902		MA153
D 4903	Chip LED	CL170FGCD
D 4904 4905 4906 4907	Chip LED	CL170FGCD
D 4908 4909 4910 4911	Chip LED	CL170FGCD
D 4912 4913	Chip LED	CL170FGCD
D 4914 4915 4916 4917	Chip LED	CL170FGCD
D 4918 4919 4920 4921	Chip LED	CL170FGCD
D 4922 4923	Chip LED	CL170FGCD
D 4924 4927 4928 4929	Chip LED	CL170FGCD
D 4926		MA151K
D 4930 4931 4932 4933	Chip LED	CL170FGCD
D 4934 4936	Chip LED	CL170FGCD
D 4937	Chip LED	CL170FGCD
L 901	Inductor	LCTA4R7K453B
L 902 903	Inductor	LCTB2R2K212S
X 901	Ceramic Resonator 4.9152MHz	CSS1084
S 901	Switch	CSG1043
S 902 903 904 905	Switch	CSG1041
S 906 907 912 913	Switch	CSG1043
S 908 909 910 911	Switch	CSG1041
S 914 915 916 917	Switch	CSG1041
S 918 919 920 921	Switch	CSG1043
S 922 923 924	Switch	CSG1043
S 925	Switch(Close)	CSN1027
	EL	CEL1424
LCD901	LCD	CAW1332
RESISTORS		
R 4901 4902		RS1/2S222J
R 4904		RS1/16S121J
R 4905		RS1/8S151J
R 4906 4907 4908 4909 4910 4911 4912 4913 4914 4915		RS1/16S470J
R 4920 4923 4955		RS1/16S473J
R 4921 4922 4924 4925 4926 4929 4930 4931		RS1/16S472J
R 4933 4957		RS1/16S102J
R 4934		RA3C102J
R 4935 4936		RS1/16S102J
R 4938 4942		RA4C102J
R 4939		RS1/16S103J
R 4946 4947 4948 4949 4950 4951 4952 4959 4960		RS1/4S151J
R 4958		RS1/16S2R2J
R 4961 4962		RS1/2S241J

=====Circuit Symbol & No. Part Name=====		Part No.
CAPACITORS		
C 4901 4902		CSZSR100M6R3
C 4914 4921		CKSQYB104K16
C 4915 4916 4917 4919 4920		CKSQYB473K16
C 4922		CKSQYB273K25
Unit Number : CWM4531		
Unit Name : Inverter Unit		
MISCELLANEOUS		
Q 640		2SD1864
	Transformer	CTT1038
RESISTORS		
R 609		RS1/10S512J
R 621		RS1/10S241J
CAPACITORS		
C 629		CKSQYB473K16
C 630		CEA100M16LL
Unit Number : CWX1923		
Unit Name : Tuner Amp Unit		
MISCELLANEOUS		
IC 451		TA2050S
IC 452		CA0008AM
IC 501		PM2004A
IC 551		PAL003A
IC 601		PD4630A
IC 602 853		S-80734ANDYI
IC 651		PD4623A
IC 701		PD6164A
IC 702		SC14SU69F
IC 703		PMW001A
IC 851		XRA3131FS
IC 852	DSP Module	CWV1062
IC 921		TPD1018F
IC 971		PA2024A
IC 991		NJM78M05A
Q 452 672 679 941		2SA1162
Q 453 454 601		DTC124EK
Q 455		DTA114TK
Q 456 881 882 883		IMH3A
Q 502		2SC2712
Q 503		DTC124EK
Q 551		IMH1A
Q 651		DTA124EK
Q 671 678		2SC3295
Q 673		IMX1
Q 675 911		2SD1760F5
Q 676 991		2SB1238
Q 677		2SC2712
Q 701		DTC143TK
Q 834 835		2SD1757K

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=====Circuit Symbol & No. Part Name=====	Part No.
Q 887 981	IMD2A
Q 951 952 953	2SC2712
Q 982	2SD2396
Q 992	DTC124EK
D 451 881 882 883	MA151WA
D 502	MA151WK
D 601	MA151K
D 602	RB705D
D 671	MA153
D 672 991	MA151WK
D 673	MA3047M
D 674	MA3082L
D 675	MA3062M
D 676 677 678	MA153
D 701	MA3047M
D 702	MA151K
D 831	MA151K
D 852 953	MA151K
D 901 902 911 921 922	ERA15-02VH
D 912	HZS6LB1
D 941	MA151WK
D 951	MA3082L
D 952	MA3075H
D 971	MA151WK
D 982	HZS9LB1
L 501 Ferri-Inductor	CTF-157
L 502 503 601 602 Ferri-Inductor	LAU2R2K
L 504 Resistor	RS1/16S0R0J
L 651 671 701 851 Ferri-Inductor	LAU2R2K
L 703 Inductor	LCTB2R2K3216
L 852 853 Inductor	LCTB1R0K3216
L 941 Ferri-Inductor	LAU2R2K
TC 601 Trimmer	CCG-070
TH 651 Thermistor	CCX1031
X 501 Crystal Resonator 7.200MHz	CSS1379
X 601 Resonator 6.291456MHz	CSS1303
X 651 Resonator 8.380MHz	CSS1354
X 701 Crystal Resonator 4.332MHz	CSS1056
S 601 Switch(Reset)	CSG1046
IL 671 Lamp 14V/40mA	CEL1150
VR 701 Semi-fixed 2.2kΩ(B)	CCP1123
FU 671 IC Protecter 0.4A	ICP-N10
FM/AM Tuner Unit	CWE1416
EF 901 EMI Filter	CCG1006
BZ 601 Buzzer	CPV1011
RESISTORS	
R 451 452	RS1/16S101J
R 453	RS1/16S620J
R 454 468 505 507 651 653 663 665 681 687	RS1/16S222J
R 455 456 464 465 469 470 487 488 489 501	RS1/16S102J
R 457 458 504 601 602 603 605 615 616 626	RS1/16S473J
R 459 463 466 625 686 736 841 842 870 871	RS1/16S223J
R 460 461 503 508 511 512 513 614 678 683	RS1/16S472J
R 462 467	RS1/16S181J
R 471 472 731	RS1/16S333J
R 473 551 552 554 661 671 676 684	RS1/16S103J
R 484 571 572 573 574 575 576 655 656 658	RS1/16S681J
R 502	RS1/16S472J
R 506 733	RS1/16S222J
R 509 706	RS1/16S0R0J
R 510	RS1/16S473J
R 514	RS1/16S105J
R 515	RS1/16S102J
R 516	RS1/16S682J
R 517	RS1/16S472J
R 518	RS1/16S682J

=====Circuit Symbol & No. Part Name=====	Part No.
R 519	RS1/16S472J
R 520	RS1/16S561J
R 521	RS1/16S102J
R 522	RS1/16S103J
R 523	RS1/16S152J
R 524	RS1/16S222J
R 525 526	RS1/16S392J
R 527	RS1/16S0R0J
R 528	RS1/16S473J
R 529	RS1/16S102J
R 530	RS1/16S681J
R 532	RS1/16S0R0J
R 533	RS1/16S562J
R 534	RS1/16S272J
R 535	RS1/16S103J
R 536	RS1/16S332J
R 553 872 873 874 875	RS1/16S331J
R 555	RS1/16S101J
R 604	RA3C221J
R 606 607 611 613	RS1/16S682J
R 608 622 624 861 862 893 944 973	RS1/16S102J
R 610 612	RS1/16S221J
R 617	RA4C681J
R 623	RS1/16S124J
R 627 631 632 652 654 659 664 666 677 707	RS1/16S473J
R 628	RA3C473J
R 635 637 639 669	RS1/16S473J
R 638	RS1/16S393J
R 662	RN1/10SE203D
R 667 668 705 711 712 717	RS1/16S681J
R 672 673	RS1/16S224J
R 674	RS1/10S473J
R 675	RS1/16S204J
R 679	RD1/4PS681JL
R 680	RS2P100JL
R 682	RS1/2S681J
R 685 820 972	RS1/16S104J
R 688	RS1/8S222J
R 689 694	RS1/10S222J
R 690 692	RS1/8S472J
R 691 693	RS1/10S472J
R 701 714	RA3C681J
R 702	RS1/16S0R0J
R 703	RS1/16S101J
R 704 708	RS1/16S681J
R 709	RS1/16S562J
R 710	RS1/16S222J
R 713 735 894 993	RS1/16S473J
R 724	RS1/16S102J
R 725	RA3C102J
R 728 729	RS1/10S102J
R 730	RS1/16S0R0J
R 732	RS1/10S151J
R 734	RS1/16S102J
R 738	RS1/16S223J
R 821 864	RS1/16S104J
R 837 838	RS1/16S332J
R 839 840	RS1/16S222J
R 843 844	RS1/16S224J
R 845	RS1/16S824J
R 851 852	RS1/16S303J
R 853 854	RS1/16S363J
R 855 856	RS1/16S513J
R 857 858	RS1/16S224J
R 866 867 868 869 942 943 971 974 983	RS1/16S472J

=====Circuit Symbol & No. Part Name=====	Part No.
R 876 877	RS1/16S184J
R 881 882 887 888 891 892	RS1/16S821J
R 883 884 885 886 889 890	RS1/16S223J
R 911	RS1/10S101J
R 912	RS1/10S682J
R 921	RS1/16S103J
R 941	RS1/10S183J
R 952 954 957	RS1/10S473J
R 953 955 956	RS1/10S223J
R 964	RS1/16S473J
R 981	RD1/4PS221JL
R 982	RS1/10S221J
R 984	RS1/16S122J
R 991	RS1/10S102J
R 992	RD1/4PS102JL
CAPACITORS	
C 451 452 702 711 983	CKSQYB104K16
C 453 601 602 603 605 704 709	CKSQYB102K50
C 454 457 458 459 707 716 855 858 859 860	CEA100M16LL
C 455 456 460 461 462 463 556 560 835 836	CEA010M50LL
C 464 465	CKSQYB102K50
C 501 504 508 513 515 517 521 671 701 718	CKSQYB103K25
C 502	CKSQYB223K25
C 503	CEAR47M50LL
C 506 518 530	CEA220M6R3LL
C 507	CKSQYB104K16
C 509 510	CKSQYB223K25
C 511 512	CCSQCH150J50
C 514	CEA330M10LL
C 516 524 529 611 652 674 675	CCSQCH101J50
C 519 523 526 862	CKSQYB103K25
C 520	CKSQYB103K25
C 522 4.7μF/16V	CCH1165
C 525 4.7μF/16V	CCH1165
C 527	CKLSR473K16
C 528	CEA220M10LL
C 532 534	CCSQCH101J50
C 533	CKSQYB152K50
C 535	CKSQYB223K25
C 536 537	CKSQYB103K25
C 538	CKSQYB103K25
C 541 543	CCSQCH101J50
C 542	CCSQCH101J50
C 544 545	CCSQCH101J50
C 546 547	CKSQYB102K50
C 548	CKSQYB103K25
C 549	CKSQYB332K50
C 551 552 553 554	CKSYB224K16
C 555	CEA330M16LL
C 557	CEA220M16LL
C 558 911 1000μF/16V	CCH1149
C 559 3300μF/16V	CCH1150
C 561 971	CKSQYB104K50
C 571 572 573 574 575 576 714	CKSQYB222K50
C 604 856	CEA2R2M50LL
C 606 651	CEA4R7M35LL
C 607	CKSQYB103K25
C 608 610	CCSQCH330J50
C 609	CCSQCH120J50
C 672 470μF/16V	CCH1183
C 705 706	CCSQCH270J50
C 708 715	CKSQYB103K25
C 710	CKSQYB472K50
C 712	CSZS010M16
C 713	CKSYB104K16
C 720	CEA4R7M16NPLL

=====Circuit Symbol & No. Part Name=====	Part No.
C 722	CKSQYB103K25
C 723 724	CCSQCH330J50
C 725	CKSQYB471K50
C 726	CCSQCH101J50
C 729	CKSYB102K50
C 730	CSZA010K25
C 837 838	CEA010M50LL
C 839 840	CKSQYB223K25
C 841	CKSQYB103K25
C 851 852 853 854	CCSQCH150J50
C 861 866 867 872 873 881 882 885 886 889	CEA100M16LL
C 863 0.22F/5.5V	CCL1037
C 864	CKSYB105K16
C 868 869 912 993	CKSQYB103K25
C 870	CKSQYB102K50
C 878	CCSQCH101J50
C 880	CSZSR100M10
C 883 884 887 888 891 892	CCSQCH221J50
C 890 992	CEA100M16LL
C 893	CCSQCH221J50
C 894 895	CKSYB105K16
C 913 972 974	CEA470M10LL
C 921	CKSQYB473K50
C 951	CKSQYB103K50
C 973	CEA101M10LL
C 975 330μF/10V	CCH1181
C 976	CKSQYB102K50
C 981	CEA101M10LS
C 982	CKSYB105K16
C 991 470μF/16V	CCH1183

Unit Number : CWE1416(DEH-P825R/EW)
Unit Name : FM/AM Tuner Unit

MISCELLANEOUS

IC 1	PA4023A
IC 2	PA4024A
Q 1 31 165 202	2SC2412KLN
Q 2 154 203	DTC124EU
Q 3	3SK263
Q 201	2SK932
D 4	1SV251
D 5 7 8	KV1410
D 6 201 202	MA157
D 231	SVC253
L 2 4	CTC1108
L 3 Inductor	LCTB2R2K2125
L 5 Coil	CTC1107
L 6 Inductor	LCTBR15K1608
L 51 Ferri-Inductor	LAU150K
L 201 Ferri-Inductor	LAU4R7K
L 202 Ferri-Inductor	LAU330K
L 203 Inductor	CTF1287
L 208 Inductor	LAU121K
L 231 Inductor	LAU3R3J
T 31 Coil	CTE1116
T 51 Coil	CTC1136
TC 1 Trimmer	CCL1042
CF 51 52 53 Ceramic Filter	CTF1292
CF 232 Ceramic Filter	CTF1348
X 151 Ceramic Resonator 920.5kHz	CSS1365
X 231 Crystal Resonator 10.26MHz	CSS1111
VR 154 Semi-fixed 68kΩ(B)	CCP1211
AR 1 Capacitor with Discharge Gap	DSP-201M

Circuit Symbol & No.	Part Name	Part No.
RESISTORS		
R 1		RS1/16S0R0J
R 4		RS1/16S154J
R 5		RS1/16S391J
R 6 10 202		RS1/16S223J
R 7 243 247		RS1/16S123J
R 8 17		RS1/16S332J
R 9		RS1/16S473J
R 11		RS1/16S124J
R 13		RS1/16S563J
R 15		RS1/16S271J
R 16		RS1/16S104J
R 18		RS1/16S332J
R 31		RS1/16S470J
R 32 215		RS1/16S822J
R 33		RS1/16S822J
R 34 35		RS1/16S331J
R 51		RS1/16S271J
R 52		RS1/16S560J
R 55		RS1/16S102J
R 56		RS1/16S823J
R 61		RS1/16S392J
R 62 152		RS1/16S393J
R 101		RS1/16S272J
R 102		RS1/16S682J
R 103		RS1/16S333J
R 104		RS1/16S334J
R 105		RS1/16S683J
R 107		RS1/16S222J
R 151		RS1/16S222J
R 154 239		RS1/16S104J
R 155		RS1/16S273J
R 156		RS1/16S243J
R 157		RS1/16S203J
R 160		RS1/16S222J
R 161		RS1/16S563J
R 162		RS1/16S105J
R 163		RS1/16S222J
R 203		RS1/16S225J
R 204		RS1/16S103J
R 206		RS1/16S220J
R 207		RS1/16S101J
R 208 217		RS1/16S102J
R 209		RS1/16S471J
R 214		RS1/16S822J
R 231		RS1/16S272J
R 232		RS1/16S473J
R 237		RS1/16S103J
R 238		RS1/16S104J
R 240		RS1/16S332J
R 241		RS1/16S202J
R 244		RS1/16S103J
CAPACITORS		
C 1		CCSQCH060D50
C 2		CCSRCH020C50
C 4		CCSRCH820J50
C 6		CCSRCH820J50
C 8 18 25 31 52 59 62 105 107 213		CKSRYB103K25
C 9 34 56 152 160 241		CKSQYB104K16
C 10		CCSRCH0R5C50
C 11		CEA010M50LL
C 12 13 17 19 20		CKSRYB222K50
C 14		CCSRCH220J50
C 16		CCSRCH080D50
C 21		CEA100M16LL
C 22		CCSRTH090D50
C 23		CCSRTH120J50
C 24		CCSRCH471J50
C 32		CKSQYB472K50
C 33		CCSRCH050C50
C 36		CCSRRH201J50
C 51		CKSRYB223K25
C 54		CCSRCH470J50
C 55		CKSQYB223K25
C 57		CKSRYB472K50
C 58 234		CEA330M10LL
C 61		CCSRCH270J50
C 63		CEAR15M50LL
C 101		CEA100M10NPLL
C 102		CKSRYB182K50
C 103		CKSRYB682K25
C 104		CEA2R2M50LL
C 106		CCSRCH151J50
C 151		CKSRYB472K50
C 153 157		CEA3R3M50LL
C 154		CKSQYB104K16
C 158		CKSYB474K16
C 159		CEA220M6R3LL
C 161 209		CKSQYB104K16
C 162		CEA3R3M50LL
C 163		CKSRYB102K50
C 170 202		CCSRCH100D50
C 201 250		CCSRCH471J50
C 203 235		CKSRYB332K50
C 204 205 236 244		CKSQYB473K16
C 206 233		CKSQYB104K16
C 207		CCSRCH560J50
C 211		CCSRCH101J50
C 212		CEA470M6R3LL
C 216		CCSRCH101J50
C 217		CEA1R5M50LL
C 219		CCSRCH471J50
C 220 230		CKSRYB103K25
C 231		CCSRCH330J50
C 232		CCSRCH150J50
C 237		CCSRCH180J50
C 239		CKSRYB472K50
C 240 242		CEAR47M50LL
C 243		CEAR33M50LL
C 245		CKSRYB123K25
C 246		CKSQYB473K16

Unit Number : CWE1417(DEH-P825/UC,P823/ES,DEX-P99/UC)
Unit Name : FM/AM Tuner Unit

MISCELLANEOUS

IC 1		PA4023A
IC 2		PA4024A
Q 1 31 202		2SC2412KLN
Q 2 203		DTC124EU
Q 3		3SK263
Q 201		2SK932
D 1 2		RD39JS
D 4		1SV251
D 5 7 8		KV1410
D 6 201 202		MA157
D 231		SVC253
L 2 4		CTC1108
L 3	Inductor	LCTB2R2K2125
L 5	Coil	CTC1107
L 51	Ferri-Inductor	LAU150K
L 201	Ferri-Inductor	LAU4R7K
L 202	Ferri-Inductor	LAU330K
L 203	Inductor	CTF1287
L 208	Inductor	LAU121K
L 231	Inductor	LAU3R3J
T 31	Coil	CTE1116
T 51	Coil	CTC1136
CF 51 52 53	Ceramic Filter	CTF1290
CF 232	Ceramic Filter	CTF1348
X 151	Ceramic Resonator 920.5kHz	CSS1365
X 231	Crystal Resonator 10.26MHz	CSS1111
VR 154	Semi-fixed 68kΩ(B)	CCP1211

DEH-P825R,P825,P823,DEX-P99

CAPACITORS

Circuit Symbol & No.	Part Name	Part No.
C 1		CCSQCH060D50
C 2		CCSRCH020C50
C 4		CCSRCH820J50
C 6		CCSRCH820J50
C 8 18 25 31 52 59 62 105 107 213		CKSRYB103K25
C 9 34 56 152 160 241		CKSQYB104K16
C 10		CCSRCH0R5C50
C 11		CEA010M50LL
C 12 13 17 19 20		CKSRYB222K50
C 14		CCSRCH220J50
C 15		CCSRCH060D50
C 16		CCSRCH080D50
C 21		CEA100M16LL
C 22		CCSRTH090D50
C 23		CCSRTH120J50
C 24		CCSRCH471J50
C 26		CCSRCH101J50
C 32		CKSQYB472K50
C 33		CCSRCH050C50
C 36		CCSRRH201J50
C 51		CKSRYB223K25
C 54		CCSRCH470J50
C 55		CKSQYB223K25
C 57		CKSRYB472K50
C 58 234		CEA330M10LL
C 60		CKSRYB102K50
C 61		CKSRYB102K50
C 63		CEAR22M50LL
C 101		CEA100M10NPLL
C 102		CKSRYB182K50
C 103		CKSRYB682K25
C 104		CEA2R2M50LL
C 106		CCSRCH151J50
C 151		CKSRYB472K50
C 153 157		CEA3R3M50LL
C 154		CKSQYB104K16
C 158		CKSYB474K16
C 159		CEA220M6R3LL
C 161 209		CKSQYB104K16
C 162		CEA3R3M50LL
C 163		CKSRYB102K50
C 170 202		CCSRCH100D50
C 201 250		CCSRCH471J50
C 203 235		CKSRYB332K50
C 204 205 236 244		CKSQYB473K16
C 206 233		CKSQYB104K16
C 207		CCSRCH560J50
C 211		CCSRCH101J50
C 212		CEA470M6R3LL
C 216		CCSRCH101J50
C 217		CEA1R5M50LL
C 219		CCSRCH471J50
C 220 230		CKSRYB103K25
C 231		CCSRCH330J50
C 232		CCSRCH150J50
C 237		CCSRCH180J50
C 239		CKSRYB472K50
C 240 242		CEAR47M50LL
C 243		CEAR33M50LL
C 245		CKSRYB183K25
C 246		CKSQYB473K16

RESISTORS

Circuit Symbol & No.	Part Name	Part No.
R 1 2		RS1/16S225J
R 4		RS1/16S154J
R 5		RS1/16S391J
R 6 10 202		RS1/16S223J
R 7 247		RS1/16S123J
R 8 17		RS1/16S332J
R 9		RS1/16S473J
R 11		RS1/16S124J
R 13		RS1/16S563J
R 15		RS1/16S271J
R 16		RS1/16S104J
R 18		RS1/16S332J
R 31		RS1/16S470J
R 32 215		RS1/16S822J
R 33		RS1/16S822J
R 34 35		RS1/16S331J
R 51		RS1/16S271J
R 52		RS1/16S560J
R 55		RS1/16S102J
R 56		RS1/16S823J
R 61		RS1/16S392J
R 62		RS1/16S273J
R 101		RS1/16S272J
R 102		RS1/16S682J
R 103		RS1/16S333J
R 104		RS1/16S334J
R 105		RS1/16S683J
R 107		RS1/16S222J
R 151		RS1/16S222J
R 152		RS1/16S393J
R 239		RS1/16S104J
R 155		RS1/16S273J
R 156		RS1/16S243J
R 157		RS1/16S203J
R 160		RS1/16S222J
R 161		RS1/16S563J
R 162		RS1/16S105J
R 163		RS1/16S223J
R 203		RS1/16S225J
R 204		RS1/16S103J
R 206		RS1/16S220J
R 207		RS1/16S101J
R 208 217		RS1/16S102J
R 209		RS1/16S471J
R 214		RS1/16S822J
R 231		RS1/16S272J
R 232		RS1/16S473J
R 237		RS1/16S103J
R 238		RS1/16S104J
R 239		RS1/16S104J
R 240		RS1/16S332J
R 241		RS1/16S202J
R 243		RS1/16S183J
R 244		RS1/16S472J

=====Circuit Symbol & No.	Part Name=====	Part No.
Unit Number : CWX1964		
Unit Name : Control Unit		
MISCELLANEOUS		
IC 101		UPC2572GS
IC 201		UPD63702GF
IC 301		XLA6997FP
IC 302		XRA6285FP
IC 701		PQ05TZ51
Q 101		2SD1664
Q 102		UMD2N
D 701 702		1SR154-400
D 801 802	LED	CL200IRX
S 801 802	Switch(Home, Clamp)	CSN1028
RESISTORS		
R 101		RS1/8S100J
R 102		RS1/8S120J
R 103		RS1/16S102J
R 104		RS1/16S822J
R 105		RS1/16S682J
R 106		RS1/16S183J
R 107		RS1/16S822J
R 108		RS1/16S333J
R 109		RS1/16S683J
R 110		RS1/16S134J
R 111		RS1/16S273J
R 112		RS1/16S222J
R 113 114		RS1/16S103J
R 115		RS1/16S102J
R 116 117		RS1/16S163J
R 201		RS1/16S104J
R 202		RS1/16S473J
R 304		RS1/16S0R0J
R 502		RS1/16S222J
R 503		RS1/16S0R0J
R 504		RS1/16S102J
R 505		RS1/16S102J
R 507		RA4C102J
R 508		RA4C681J
R 510		RS1/10S0R0J
R 801 802		RS1/8S751J
CAPACITORS		
C 101 601 703		CEV101M6R3
C 102		CKSQYB104K16
C 103		CEV470M6R3
C 104		CKSYB334K16
C 105		CCSRCH330J50
C 106 304		CKSRYB103K25
C 107		CEV4R7M35
C 108		CKSQYB273K50
C 109		CCSRCH101J50
C 110 202		CKSQYB104K16
C 111		CKSRYB332K50
C 112		CKSQYB473K16
C 113		CKSRYB103K25
C 114		CKSRYB391K50
C 115		CCSRCH121J50
C 116		CKSRYB682K25
C 117		CKSRYB333K16
C 118 201		CKSYB334K16
C 119		CKSYB334K16
C 120 121 702		CKSYB334K16
C 122 124		CKSQYB104K16
C 123		CKSRYB472K50
C 125		CCSRCH060D50
C 126		CKSRYB153K25
C 127		CCSRCH102J25

=====Circuit Symbol & No.	Part Name=====	Part No.
C 203		CKSQYB104K16
C 303		CEV470M16
C 305 306		CKSRYB103K25
C 501		CCSRCH221J50
C 502		CKSRYB471K50
C 602		CKSQYB104K16
C 701	22µF/6.3V	CCH1233
C 901 903		CCSRCH471J50
C 902		CCSRCH271J50
C 904		CCSRCH101J50
Unit Number :		
Unit Name : Detector P.C.Board		
Q 1 2	Photo Transistor	CPT-230S-X
Unit Number : CWX1922(DEX-P99/UC)		
Unit Name : High Output Unit		
MISCELLANEOUS		
IC 4151 4251 4351		NJM4558MD
Q 4151		IMH3A
Q 4251 4351		IMH3A
D 4151 4251 4351		MA151WA
	DC-DC Converter Unit	CWM4538
RESISTORS		
R 4051		RD1/2PS271JL
R 4151 4351 4352		RS1/10S473J
R 4152		RS1/16S473J
R 4153 4154 4156 4253 4255 4353 4354 4355 4356		RS1/16S103J
R 4155 4254 4256		RS1/10S103J
R 4157 4257 4258 4357 4358		RS1/10S821J
R 4158		RS1/16S821J
R 4159 4160 4259 4260 4359 4360		RS1/10S223J
R 4251 4252		RS1/16S473J
CAPACITORS		
C 4053		CSZSC100M16
C 4151 4152 4351 4352		CEA2R2M50LL
C 4153 4254		CEA100M16LL
C 4154 4253 4353 4354		CEA100M16LS2
C 4155 4156		CKSYB105K16
C 4157 4158		CKSQYB823K25
C 4251 4252		CEA2R2M50LS2
C 4255 4256 4355 4356		CCSQCH221J50
C 4257 4357 4358		CCSQCH820J50
C 4258		CCSQCH820J50
Unit Number : CWM4538(DEX-P99/UC)		
Unit Name : DC-DC Converter Unit		
MISCELLANEOUS		
IC 4001		TL1451ANS
Q 4001		2SA1797
Q 4002		2SC2812
Q 4003		2SA1179
Q 4004		2SA1576
Q 4005		DTC124EU
D 4001		SC802-06
L 4001 4002 4003	Choke Coil 220H	CTH1164
RESISTORS		
R 4001		RS1/10S122J
R 4002		RS1/10S473J
R 4003		RS1/4S681J
R 4004		RS1/10S101J
R 4005		RN1/10SE333D
R 4006		RN1/10SE123D
R 4007		RS1/10S104J
R 4008		RN1/10SE622D
R 4009 4010		RS1/10S223J
R 4011		RS1/10S101J

=====Circuit Symbol & No.	Part Name=====	Part No.
R 4012 4013		RN1/10SE103D
R 4016		RS1/10S754J
R 4017		RN1/10SE912D
R 4018		RN1/10SE153D
R 4019		RN1/10SE303D
CAPACITORS		
C 4001 4003 4006 4008	33µF/25V	CCH1249
C 4002 4005 4009 4010 4014		CKSQYB102K50
C 4004		CCSQCH101J50
C 4011		CKSQYF105Z16
C 4012		CCSQCH221J50

=====Circuit Symbol & No.	Part Name=====	Part No.
C 4013		CKSQYB104K25
Miscellaneous Parts List		
	PU Unit	CGY1070
M 1	Motor Unit(Spindle)	CXA9101
M 2	CRG Motor Unit(Carriage)	CXA8986
M 3	Load Motor Unit(Loading)	CXA8702

● The DEH-P825/UC, DEH-P823/ES, and DEX-P99/UC Parts Lists enumerate the parts which differ from those enumerated in the DEH-P825/UC Parts List only. The parts other than those enumerated in the former are identical with those in the latter, to which you are requested to refer, accordingly. The DEH-P825R/EW Parts List is given on page 29.

Tuner Amp Unit(1/3)

	DEH-P825R/EW	DEH-P825/UC	DEH-P823/ES	DEX-P99/UC
Circuit Symbol & No.	Part No.	Part No.	Part No.	Part No.
IC551	PAL003A	PAL003A	PAL003A	*****
IC601	PD4630A	PD4629A	PD4630A	PD4629A
IC701	PD6164A	PD6165A	*****	PD6165A
IC702	SC14SU69F	*****	*****	*****
IC703	PMW001A	*****	*****	*****
IC704	*****	PD4633A	*****	PD4633A
IC931	*****	*****	*****	TPD1018F
Q551	IMH1A	IMH1A	IMH1A	*****
Q701	DTC143TK	*****	*****	*****
Q834,835	2SD1757K	*****	*****	*****
Q881-883	IMH3A	IMH3A	IMH3A	*****
Q941	2SA1162	*****	2SA1162	*****
Q961	*****	*****	*****	IMD2A
Q962	*****	*****	*****	2SC2712
D701	MA3047M	*****	*****	*****
D702,831	MA151K	*****	*****	*****
D881-883	MA151WA	MA151WA	MA151WA	*****
D931,932,961,962	*****	*****	*****	ERA15-02VH
D941	MA151WK	*****	MA151WK	*****
D964	*****	*****	*****	BR4361F
L701	LAU2R2K	LAU2R2K	*****	LAU2R2K
L702	*****	LAU2R2K	*****	LAU2R2K
L703	LCTB2R2K3216	*****	*****	*****
L941	LAU2R2K	*****	LAU2R2K	*****
L961	*****	*****	*****	LAU2R2K
X701	CSS1056 (4.332MHz)	CSS1338 (4.330MHz)	*****	CSS1338 (4.330MHz)
VR701	CCP1123	*****	*****	*****
FM/AM Tuner Unit	CWE1416	CWE1417	CWE1417	CWE1417
High Output Unit	*****	*****	*****	CWX1922
R502	RS1/16S472J	*****	*****	*****
R509	RS1/16S0R0J	RS1/16S0R0J	*****	RS1/16S0R0J
R514	RS1/16S105J	RS1/16S105J	*****	RS1/16S105J
R528	RS1/16S473J	RS1/16S0R0J	RS1/16S0R0J	RS1/16S0R0J
R551,552,554	RS1/16S103J	RS1/16S103J	RS1/16S103J	*****
R553	RS1/16S331J	RS1/16S331J	RS1/16S331J	*****

Tuner Amp Unit(2/3)

Circuit Symbol & No.	DEH-P825R/EW Part No.	DEH-P825/UC Part No.	DEH-P823/ES Part No.	DEX-P99/UC Part No.
R555	RS1/16S101J	RS1/16S101J	RS1/16S101J	-----
R601-603	RS1/16S473J	RS1/16S473J	-----	RS1/16S473J
R614	RS1/16S472J	RS1/16S472J	-----	RS1/16S472J
R615	RS1/16S473J	RS1/16S473J	-----	-----
R632	RS1/16S473J	RS1/16S473J	RS1/16S563J	RS1/16S433J
R633	-----	-----	RS1/16S433J	RS1/16S563J
R634	-----	-----	-----	RS1/16S683J
R635	RS1/16S473J	RS1/16S473J	RS1/16S473J	RS1/16S303J
R636	-----	-----	-----	RS1/16S473J
R637	RS1/16S473J	RS1/16S473J	RS1/16S473J	-----
R639	RS1/16S473J	RS1/16S473J	-----	RS1/16S473J
R701	RA3C681J	-----	-----	-----
R702	RS1/16S0R0J	-----	-----	-----
R703	RS1/16S101J	-----	-----	-----
R704	RS1/16S681J	RS1/16S681J	-----	RS1/16S681J
R705,712	RS1/16S681J	RS1/16S681J	-----	RS1/16S681J
R706	RS1/16S0R0J	-----	-----	-----
R707	RS1/16S473J	-----	-----	-----
R708	RS1/16S681J	-----	-----	-----
R709	RS1/16S562J	-----	-----	-----
R710	RS1/16S222J	RS1/16S0R0J	-----	RS1/16S0R0J
R711,717	RS1/16S681J	-----	-----	-----
R713,735	RS1/16S473J	RS1/16S473J	-----	RS1/16S473J
R714	RA3C681J	RA3C681J	-----	RA3C681J
R718-722,748-751	-----	RS1/16S473J	-----	RS1/16S473J
R724	RS1/16S102J	-----	-----	-----
R725	RA3C102J	-----	-----	-----
R728,729	RS1/10S102J	-----	-----	-----
R730	RS1/16S0R0J	-----	-----	-----
R731	RS1/16S333J	-----	-----	-----
R732	RS1/10S151J	-----	-----	-----
R733	RS1/16S222J	-----	-----	-----
R734	RS1/16S102J	-----	-----	-----
R736	RS1/16S223J	-----	-----	-----
R738	RS1/16S223J	-----	-----	-----
R752-764,766-768,770	-----	RS1/16S102J	-----	RS1/16S102J
R765,769,771	-----	RS1/10S102J	-----	RS1/10S102J
R772-779	-----	RS1/16S102J	-----	RS1/16S102J
R805,806	-----	-----	-----	RS1/16S102J
R818,819	-----	-----	-----	RS1/16S103J
R837,838	RS1/16S332J	RS1/16S182J	RS1/16S182J	RS1/16S182J
R843,844	RS1/16S224J	-----	-----	-----
R845	RS1/16S824J	-----	-----	-----
R876,877	RS1/16S184J	RS1/16S184J	RS1/16S184J	RS1/16S0R0J
R881,882,887,888,891,892	RS1/16S821J	RS1/16S821J	RS1/16S821J	-----
R883-886,889,890	RS1/16S223J	RS1/16S223J	RS1/16S223J	-----
R941	RS1/10S183J	-----	RS1/10S183J	-----

Tuner Amp Unit(3/3)

Circuit Symbol & No.	DEH-P825R/EW Part No.	DEH-P825/UC Part No.	DEH-P823/ES Part No.	DEX-P99/UC Part No.
R942,943	RS1/16S472J	-----	RS1/16S472J	-----
R944	RS1/16S102J	-----	RS1/16S102J	-----
R961	-----	-----	-----	RS1/10S103J
R962	-----	-----	-----	RS1/10S223J
R963	-----	-----	-----	RS1/10S272J
R965	-----	-----	-----	RS1/10S103J
R966	-----	-----	-----	RS1/10S102J
R967	-----	-----	-----	RS1/10S0R0J
C503	CEAR47M50LL	-----	-----	-----
C505	-----	-----	CKSQYB103K25	-----
C533	CKSQYB152K50	-----	-----	-----
C551-554	CKSYB224K16	CKSYB224K16	CKSYB224K16	-----
C555	CEA330M16LL	CEA330M16LL	CEA330M16LL	-----
C556,560	CEA010M50LL	CEA010M50LL	CEA010M50LL	-----
C557	CEA220M16LL	CEA220M16LL	CEA220M16LL	-----
C561	CKSQYB104K50	CKSQYB104K50	CKSQYB104K50	-----
C701	CKSQYB103K25	CKSQYB103K25	-----	CKSQYB103K25
C702	CKSQYB104K16	CKSQYB104K16	-----	CKSQYB104K16
C704	CKSQYB102K50	CKSQYB102K50	-----	CKSQYB102K50
C705,706	CCSQCH270J50	-----	-----	-----
C707,716	CEA100M16LL	-----	-----	-----
C708,715	CKSQYB103K25	-----	-----	-----
C709	CKSQYB102K50	-----	-----	-----
C710	CKSQYB472K50	-----	-----	-----
C711	CKSQYB104K16	-----	-----	-----
C712	CSZS010M16	-----	-----	-----
C713	CKSYB104K16	-----	-----	-----
C714	CKSQYB222K50	-----	-----	-----
C717	-----	CEA100M16LL	-----	CEA100M16LL
C718	CKSQYB103K25	-----	-----	-----
C720	CEA4R7M16NPLL	-----	-----	-----
C722	CKSQYB103K25	-----	-----	-----
C723,724	CCSQCH330J50	-----	-----	-----
C725	CKSQYB471K50	-----	-----	-----
C726	CCSQCH101J50	-----	-----	-----
C730	CSZA010K25	-----	-----	-----
C825,826	-----	-----	-----	CEA010M50LL
C839,840	CKSQYB223K25	CKSQYB473K16	CKSQYB473K16	CKSQYB473K16
C841	CKSQYB103K25	-----	-----	-----
C881,882,885,886,889	CEA100M16LL	CEA100M16LL	CEA100M16LL	-----
C883,884,887,888,891,892	CCSQCH221J50	CCSQCH221J50	CCSQCH221J50	-----
C890	CEA100M16LL	CEA100M16LL	CEA100M16LL	-----
C894,895	CKSYB105K16	CKSYB105K16	CKSYB105K16	-----
C931	-----	-----	-----	CKSQYB473K50
C961	-----	-----	-----	CKSQYB103K50

Key Board Unit

Circuit Symbol & No.	DEH-P825R/EW Part No.	DEH-P825/UC Part No.	DEH-P823/ES Part No.	DEX-P99/UC Part No.
LCD901	CAW1332	CAW1333	CAW1333	CAW1363
R4935,4936	RS1/16S102J	RS1/16S102J	RS1/16S102J	RS1/16S473J

9. LCD

● CAW1332(DEH-P825R/EW)

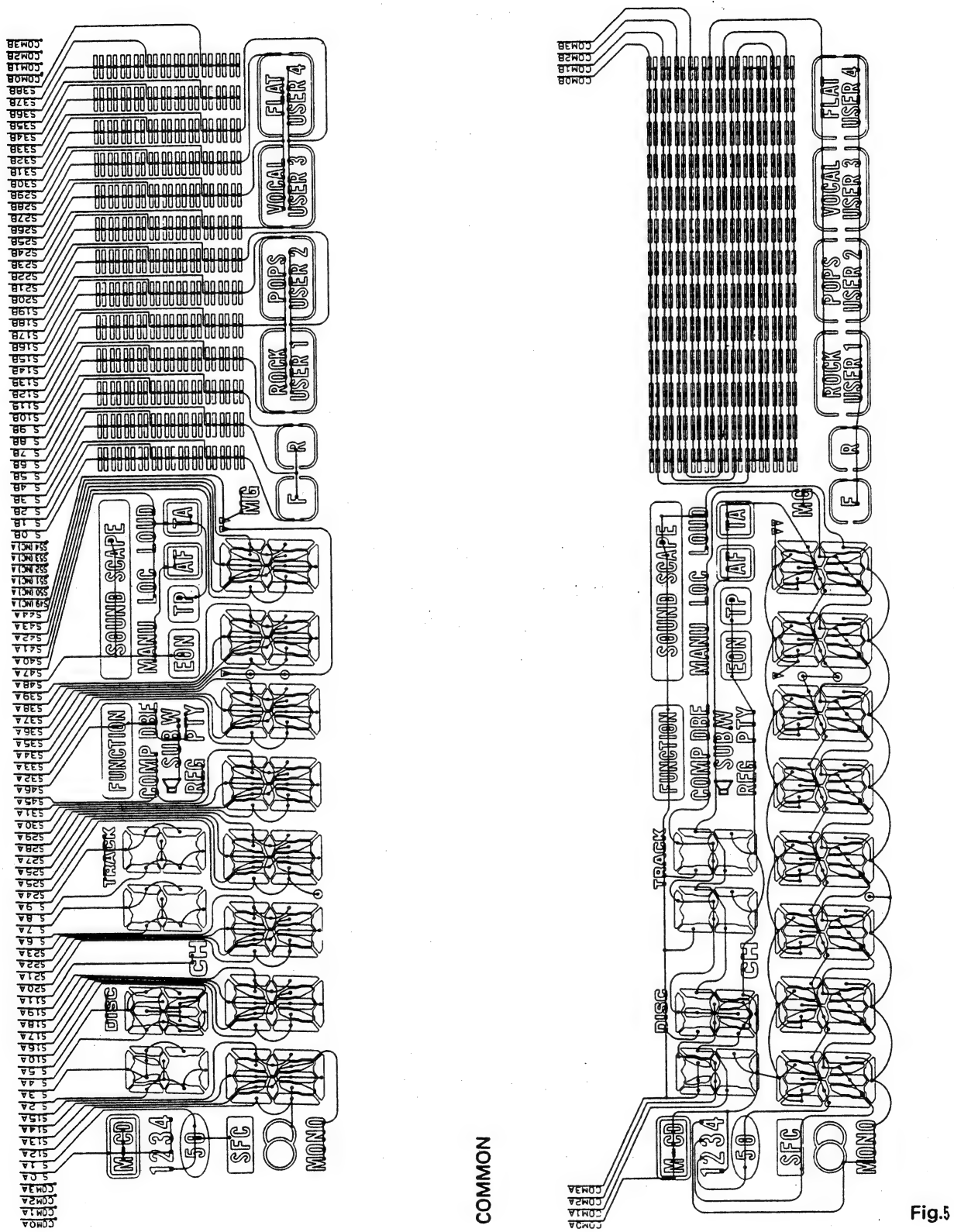
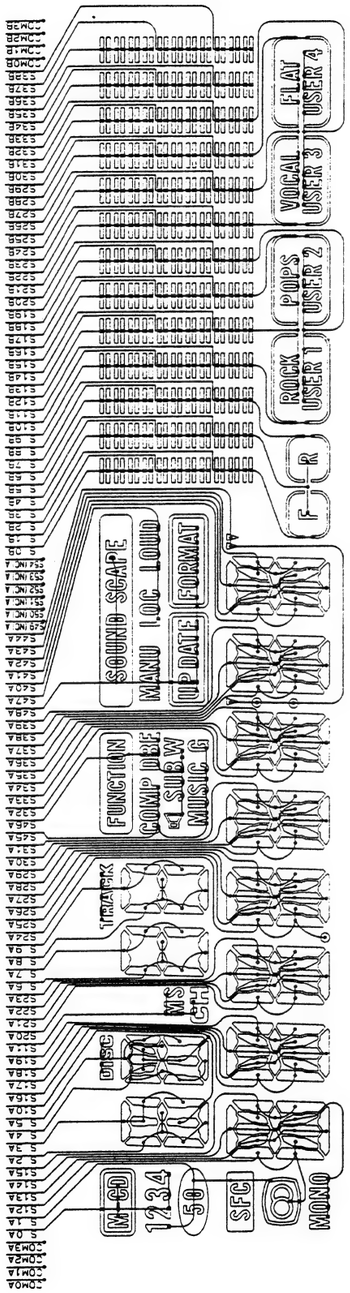


Fig.5

● CAW1333(DEH-P825/UC,P823/ES),CAW1363(DEX-P99/UC)

SEGMENT



COMMON

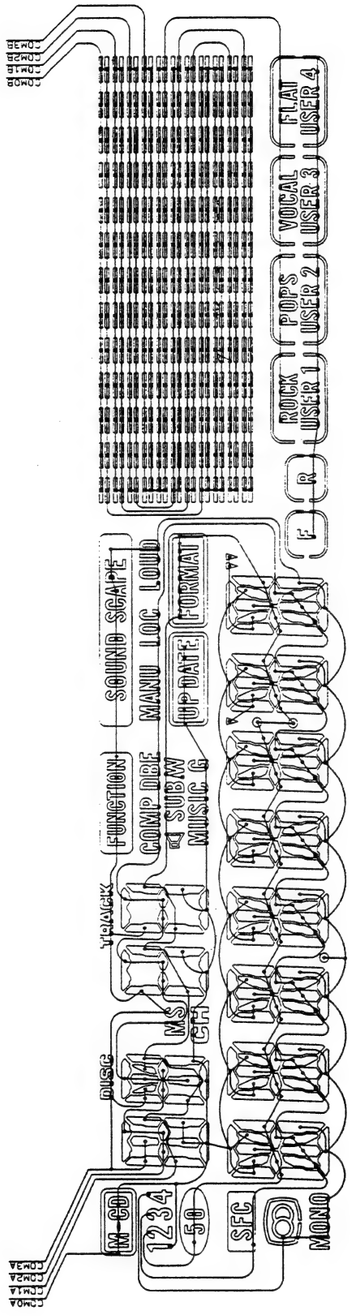


Fig.6

10. BLOCK DIAGRAM

● DEH-P825R/EW

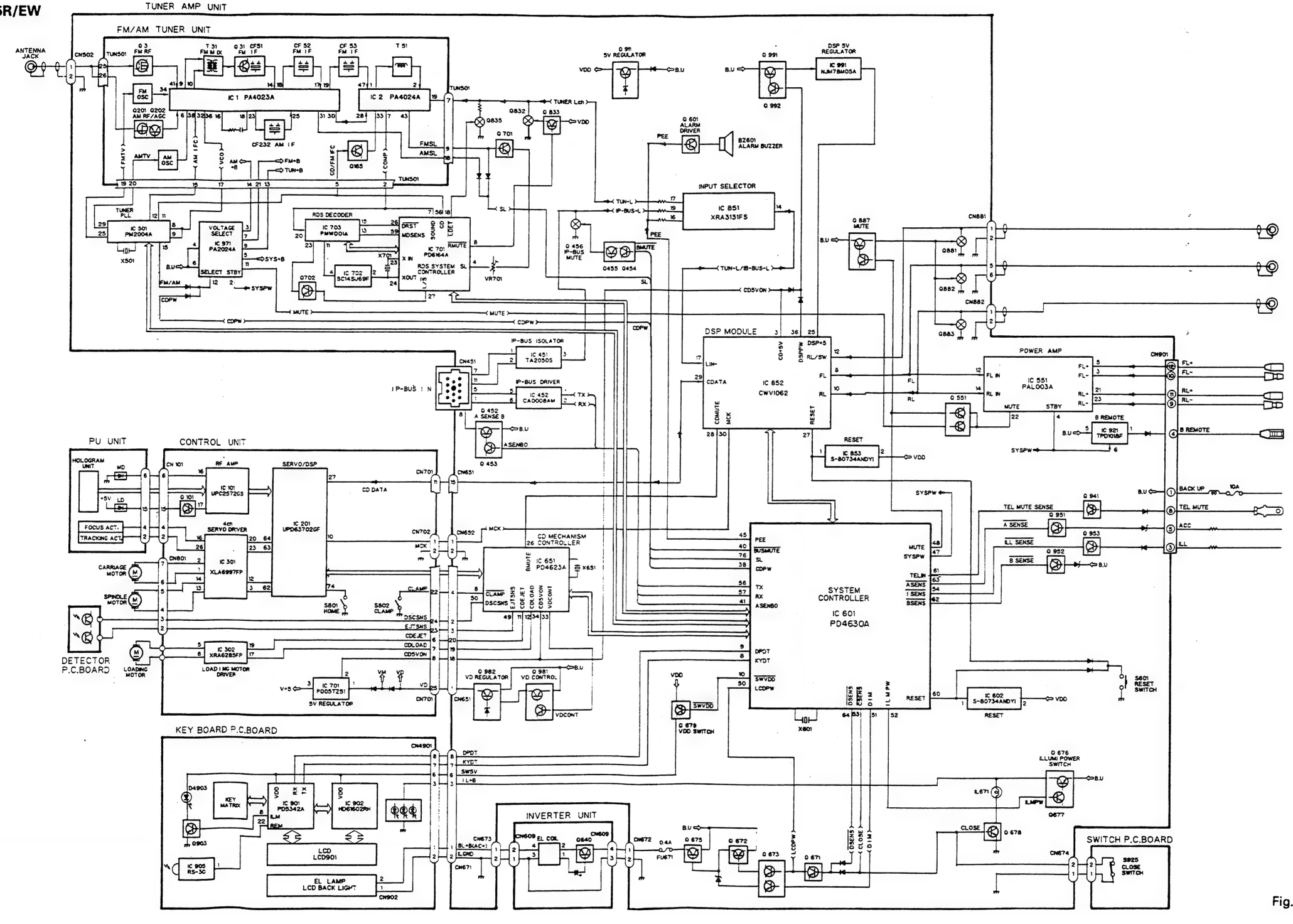
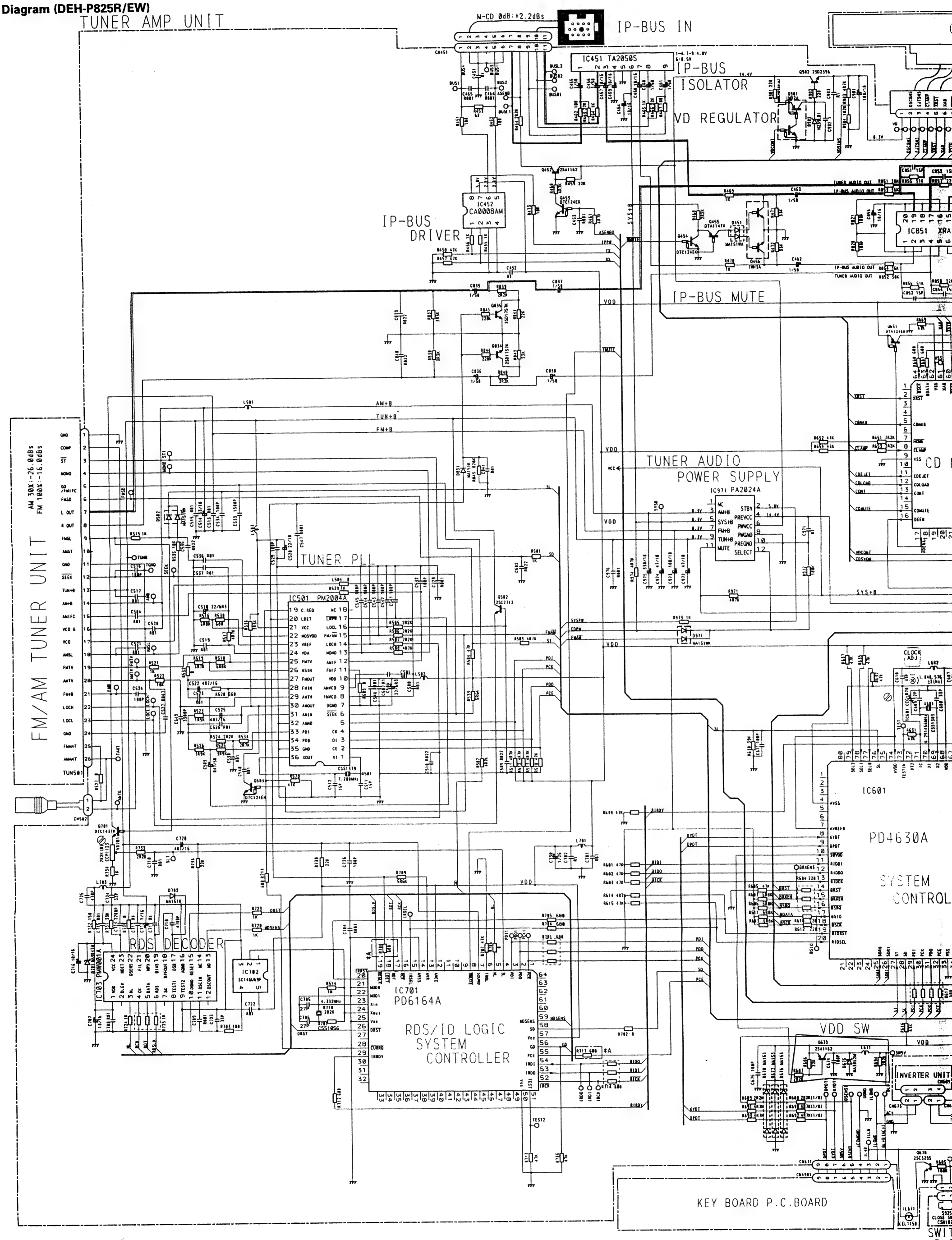


Fig.7

11. CIRCUIT DIAGRAM AND PATTERN

11.1 TUNER AMP UNIT,SWITCH P.C.BOARD

● **Circuit Diagram (DEH-P825R/EW)**



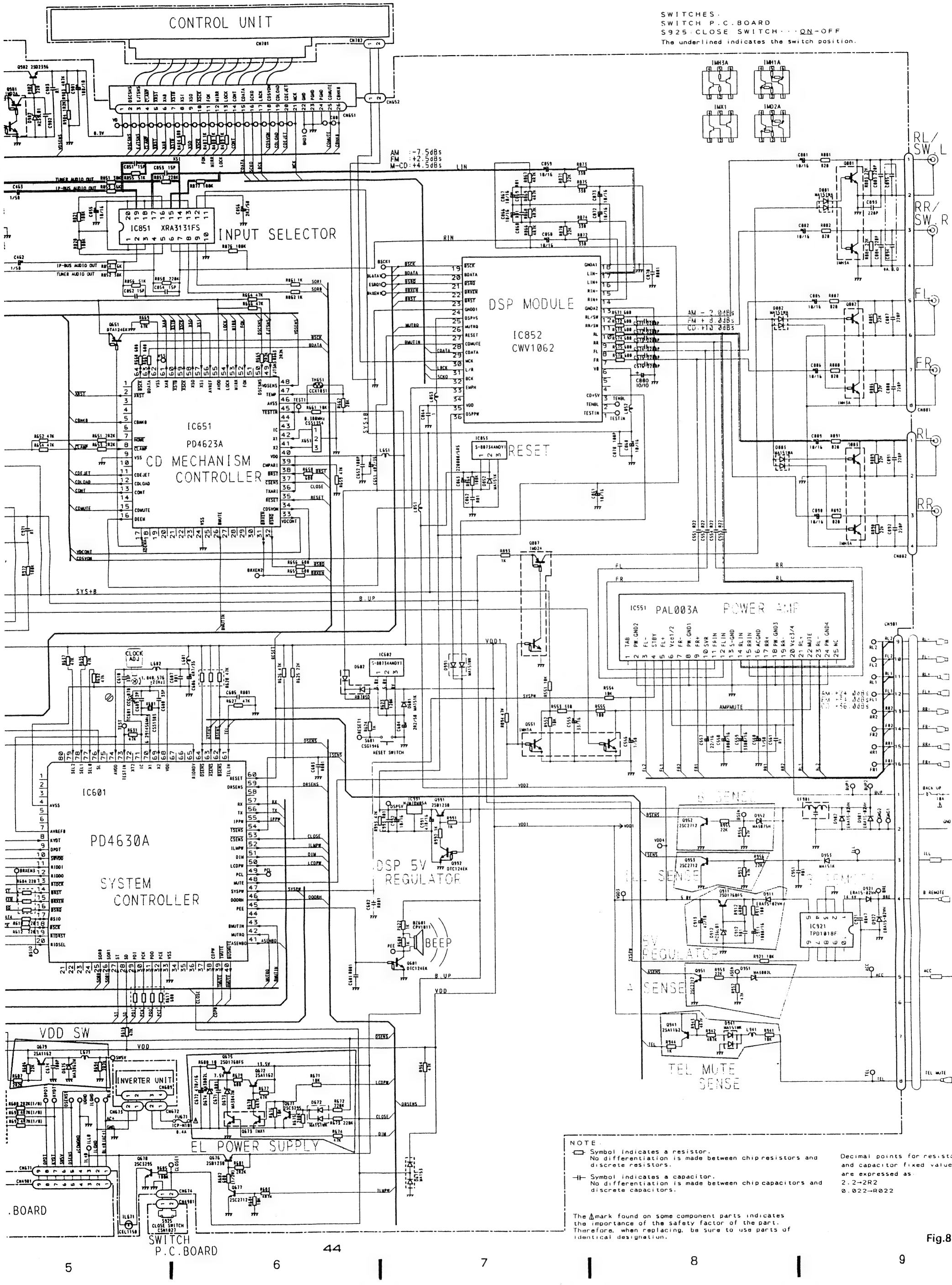
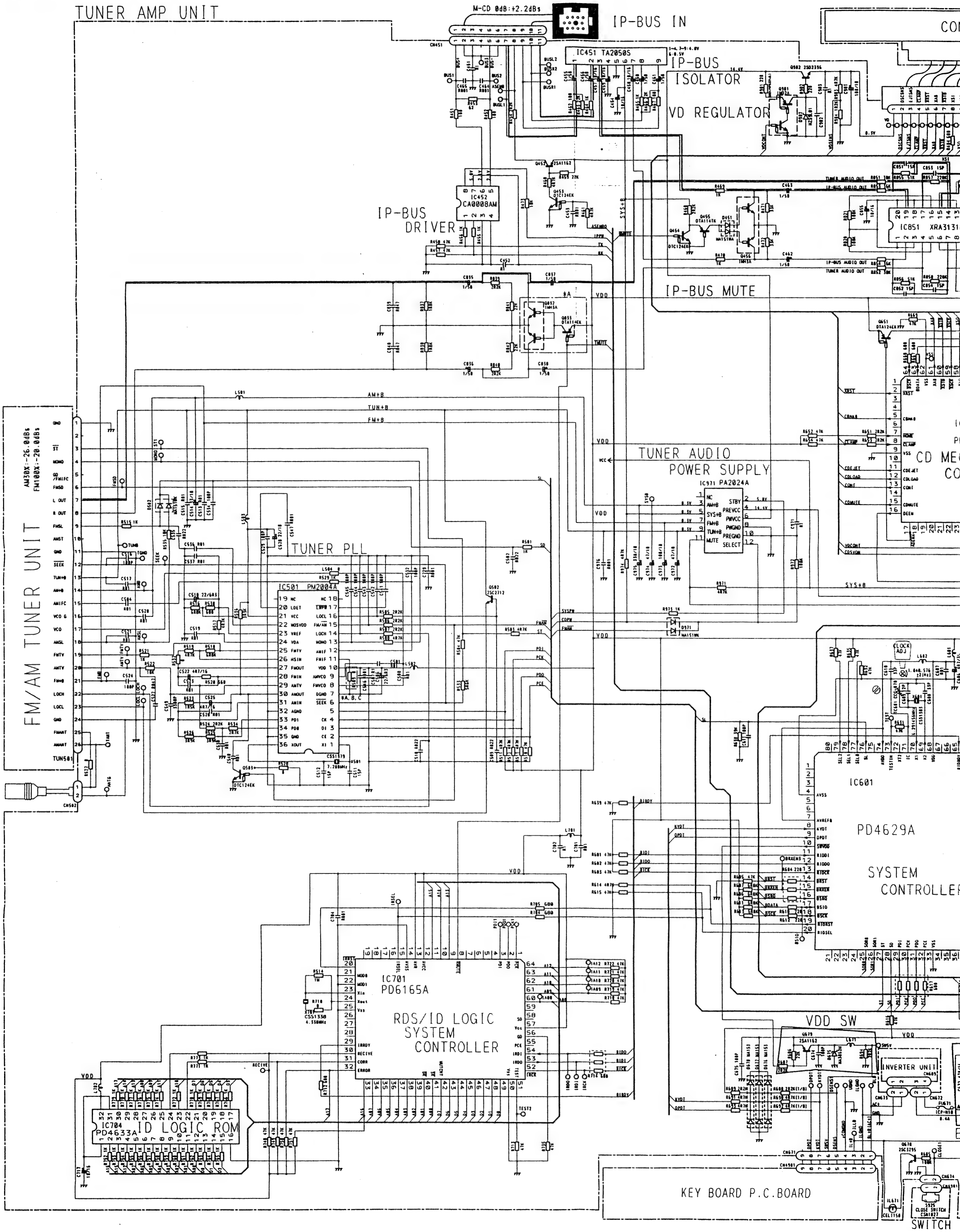

CONTROL UNIT
CN701
CN702
CN652
CN651
SWITCHES.
SWITCH P.C.BOARD
S925 CLOSE SWITCH · · · ON-OFF
The underlined indicates the switch position.
IMH3A
IMH1A
IMX1
IMD2A
AM : -7.5dBs
FM : +2.5dBs
M-CD: +4.5dBs
AM : -2.0dBs
FM : 0.0dBs
CD-FM: 0dBs
LIN
RIN
IC851 XRA3131FS
INPUT SELECTOR
TUNER AUDIO OUT
IP-BUS AUDIO OUT
DSP MODULE
IC852
CWV1062
IC651
PD4623A
CD MECHANISM
CONTROLLER
IC853
S-80734ANDY1
RESET
IC602
S-80734ANDY1
RESET SWITCH
S601
CSG1946
IC601
PD4630A
SYSTEM
CONTROLLER
IC551 PAL003A
POWER AMP
AMPMUTE
SYS+B
B.UP
VDD1
VDD2
VDD
DSP 5V
REGULATOR
BEEP
IC921
TPD1018F
5V
REGULATOR
VDD SW
INVERTER UNIT
EL POWER SUPPLY
SENSE
TEL MUTE
SENSE
RL/
SW.L
RR/
SW.R
FL
FR
RL
RR
SWITCH
P.C.BOARD
NOTE
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
Decimal points for resistor and capacitor fixed values are expressed as
2.2→2R2
0.022→R022

Fig.8

● **Circuit Diagram (DEH-P825/UC)**



SWITCHES:
SWITCH P.C.BOARD
S925 CLOSE SWITCH ···ON-OFF
The underlined indicates the switch position.

CONTROL UNIT

CN701

CN702

CN652

CN651

IC851 XRA3131FS

INPUT SELECTOR

IC651

PD4623A

CD MECHANISM CONTROLLER

IC852

CWV1062

DSP MODULE

IC853

S-80734ANDY1

RESET

IC602

S-80734ANDY1

RESET SWITCH

IC601

PD4629A

SYSTEM CONTROLLER

IC551 PAL003A

POWER AMP

DSP 5V REGULATOR

BEEP

B SENSE

ILL SENSE

B REMOTE

5V REGULATOR

A SENSE

VDD SW

INVERTER UNIT

EL POWER SUPPLY

SWITCH P.C.BOARD

AM: -7.5dBs
FM: -1.5dBs
M-CD: +4.5dBs

AM: -2.0dBs
FM: +4.0dBs
CD: +10.0dBs

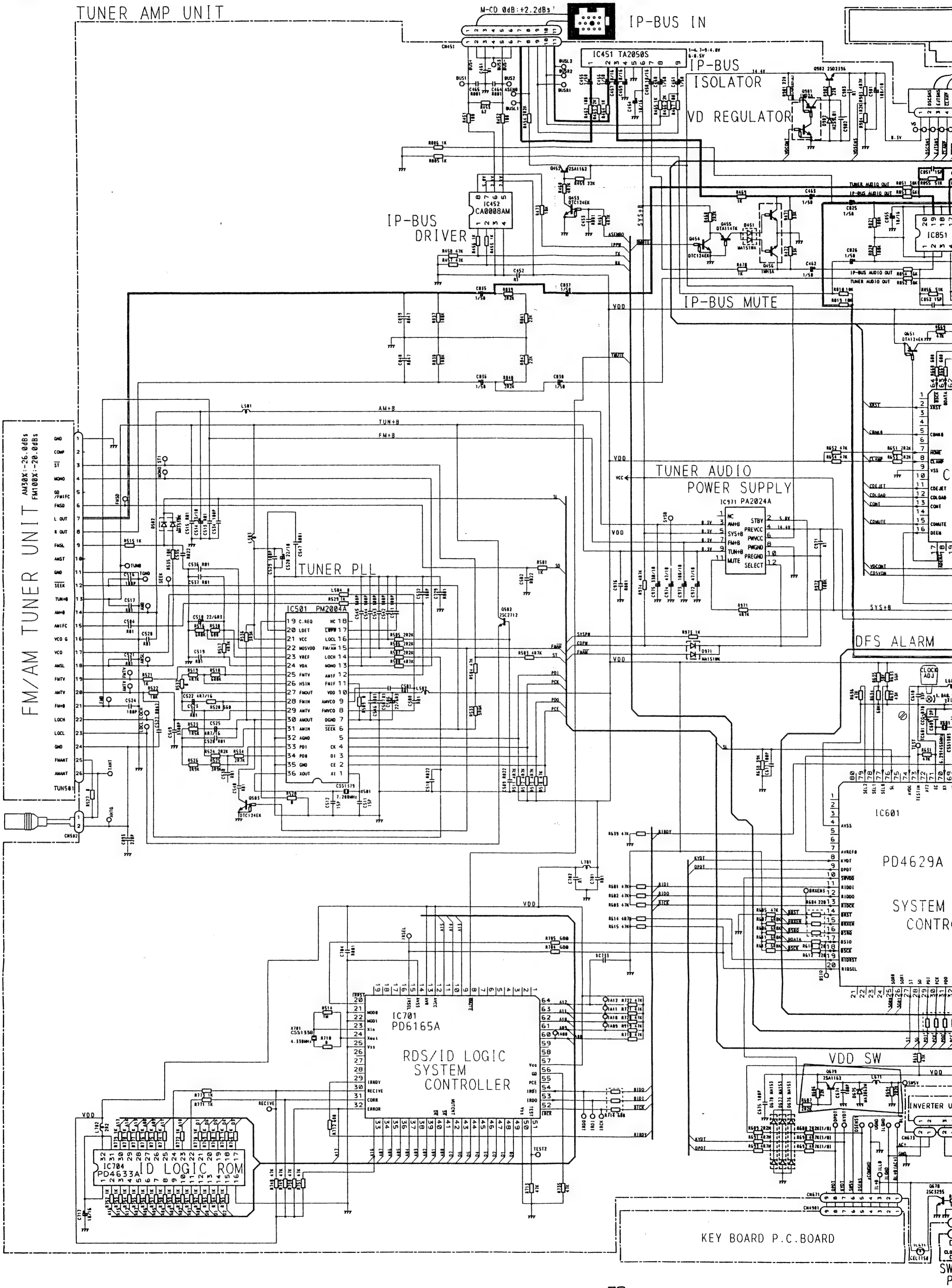
NOTE:
- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

Decimal points for resistor and capacitor fixed values are expressed as
2.2→2R2
0.022→R022

Fig.9

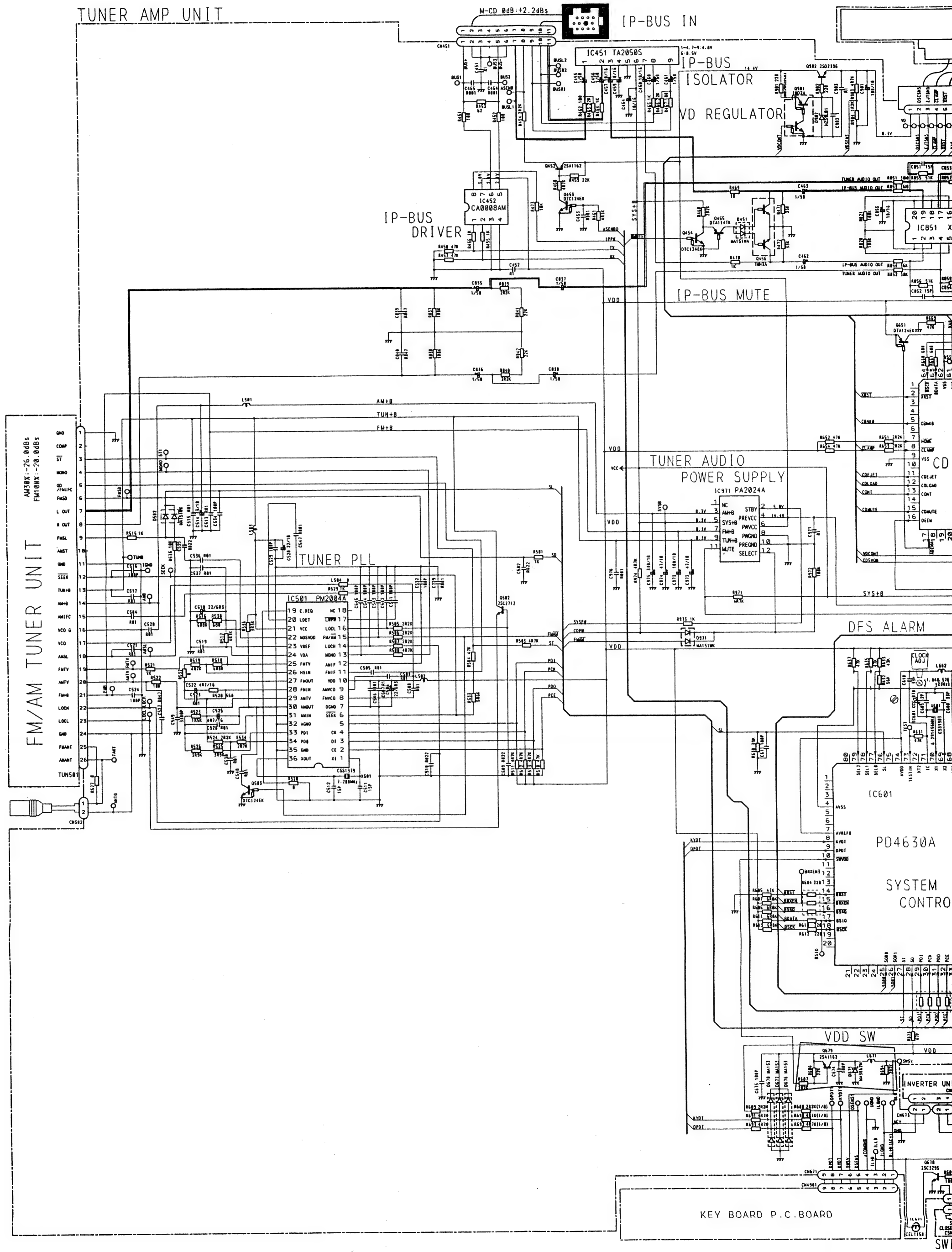
● **Circuit Diagram (DEX-P99/UC)**



CONTROL UNIT
HIGH OUTPUT UNIT
SWITCHES:
SWITCH P.C.BOARD
S925:CLOSE SWITCH···ON-OFF
The underlined indicates the switch position.
IMH3A
IMH1A
IMX1
IMO2A
CN701
CN702
CN652
CN651
CN851
CN4851
AM :-7.5dBs
FM :-1.5dBs
M-CD:+4.5dBs
LIN
RIN
TUNER AUDIO OUT
IP-BUS AUDIO OUT
IC851 XRA3131FS
INPUT SELECTOR
DSP MODULE
IC852
CWV1062
AM:-2.0dBs
FM:+4.0dBs
CD:+10.0dBs
IC651
PD4623A
CD MECHANISM
CONTROLLER
IC853
S-80734ANDY1
RESET
SYS+B
B.UP
DFS ALARM
IC601
PD4629A
SYSTEM
CONTROLLER
IC602
S-80734ANDY1
VDD1
SYSPW
DSP 5V
REGULATOR
BEEP
B SENSE
ILL SENSE
B REMOTE
5V
REGULATOR
A SENSE
AUTO ANTENNA
ALARM OUTPUT
VDD SW
INVERTER UNIT
EL POWER SUPPLY
DOOR SENSE
SWITCH
P.C.BOARD
CLOSE SWITCH
CSH1027
RESET SWITCH
CSG1046
BACK UP
ACC
AUTO ANT
B REMOTE
ILL
HORN
DOOR
NOTE
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

Fig.11

● **Circuit Diagram (DEH-P823/ES)**



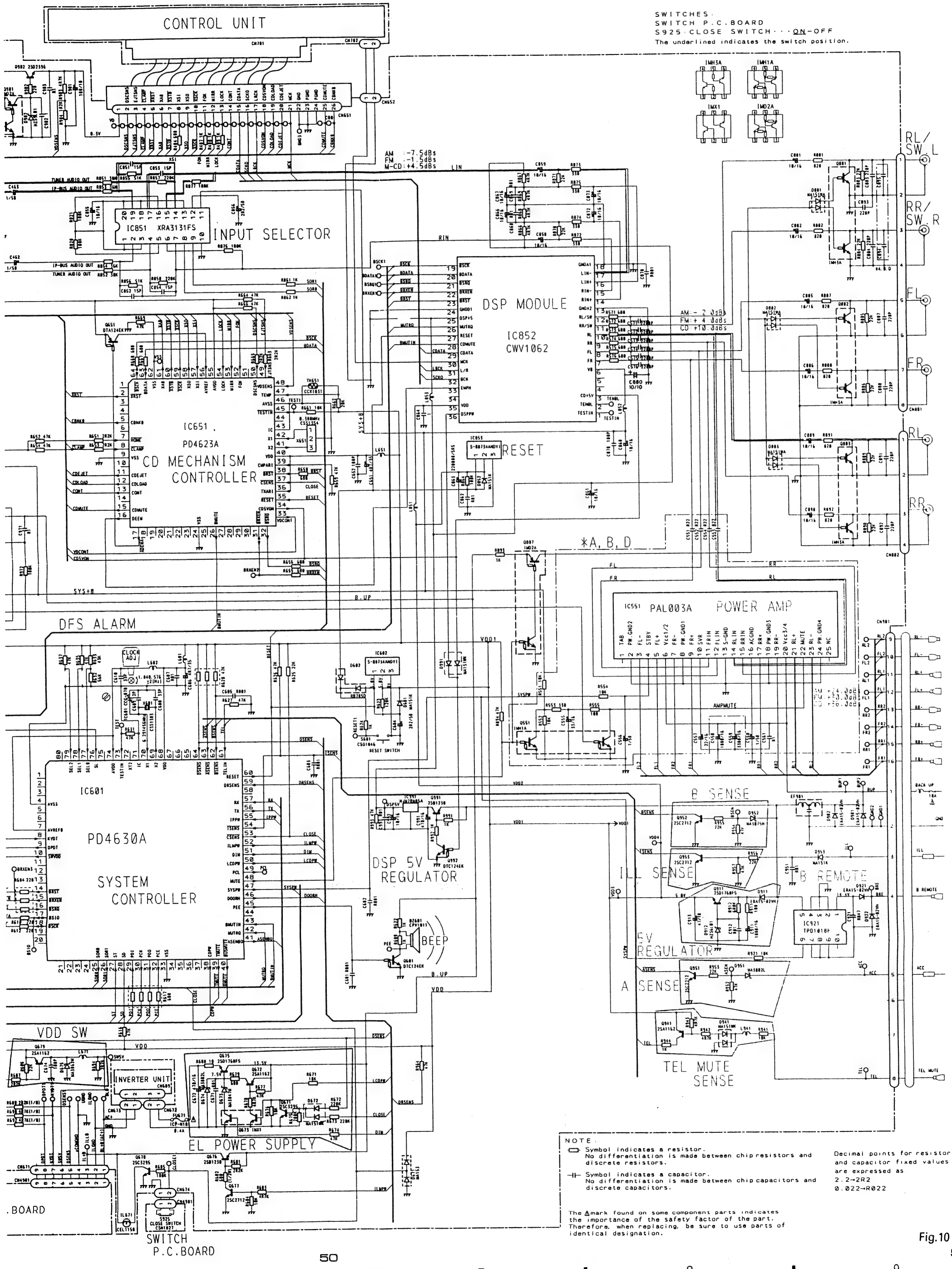
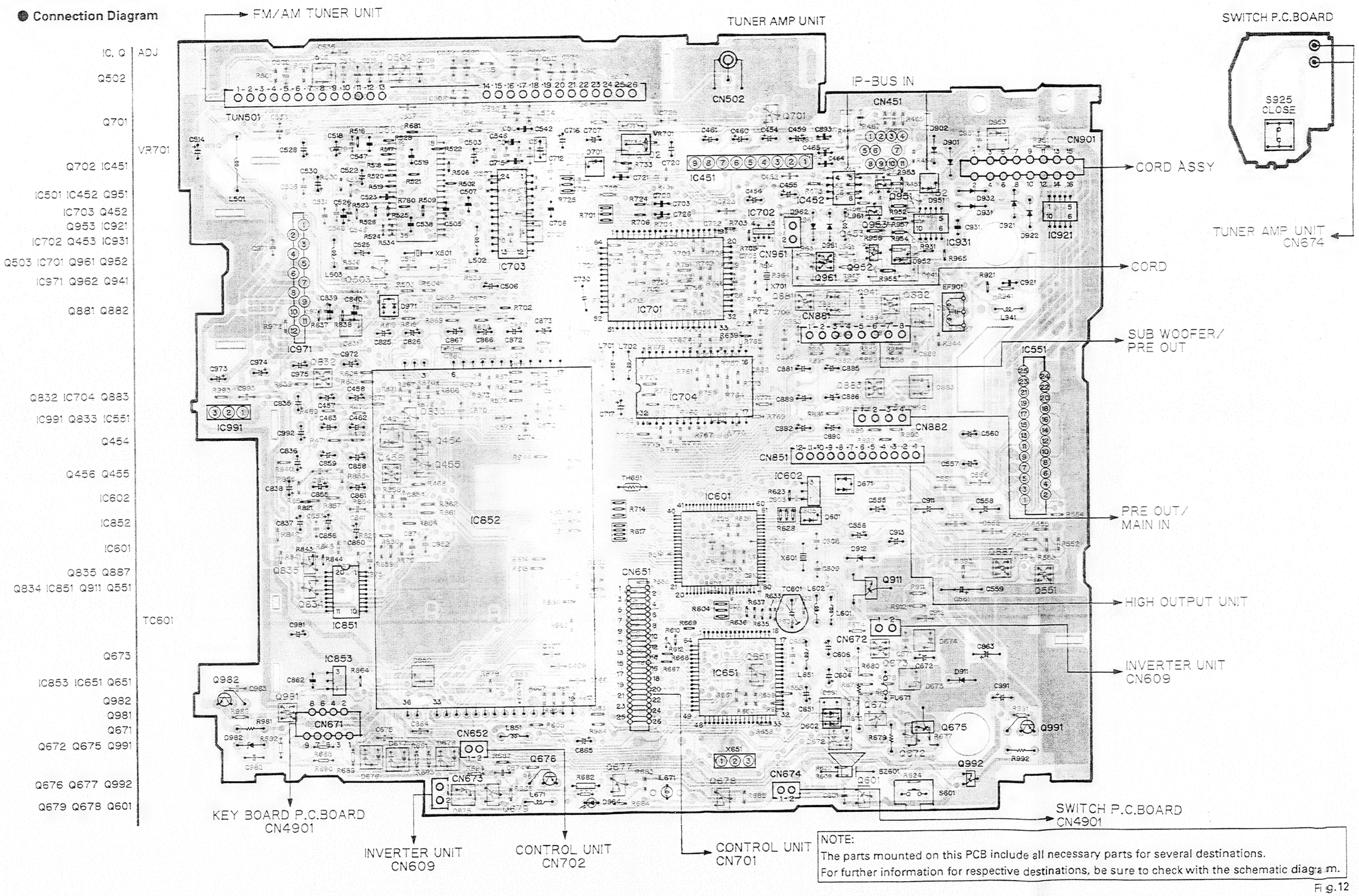

CONTROL UNIT
SWITCHES
SWITCH P.C.BOARD
S925 CLOSE SWITCH ···ON-OFF
The underlined indicates the switch position.
AM : -7.5dBs
FM : -1.5dBs
M-CD: +4.5dBs
LIN
RIN
INPUT SELECTOR
IC851 XRA3131FS
DSP MODULE
IC852
CWV1062
AM : -2.0dBs
FM : +4.0dBs
CD : +10.0dBs
IC651
PD4623A
CD MECHANISM
CONTROLLER
RESET
*A, B, D
POWER AMP
IC551 PAL003A
DFS ALARM
IC601
PD4630A
SYSTEM
CONTROLLER
DSP 5V
REGULATOR
B SENSE
ILL SENSE
B REMOTE
5V
REGULATOR
A SENSE
TEL MUTE
SENSE
BEEP
VDD SW
INVERTER UNIT
EL POWER SUPPLY
RESET SWITCH
SWITCH
P.C.BOARD
RL/
SW.L
RR/
SW.R
FL
FR
RL
RR
NOTE:
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
Decimal points for resistor and capacitor fixed values are expressed as
2.2→2R2
0.022→R022

Fig.10

Connection Diagram

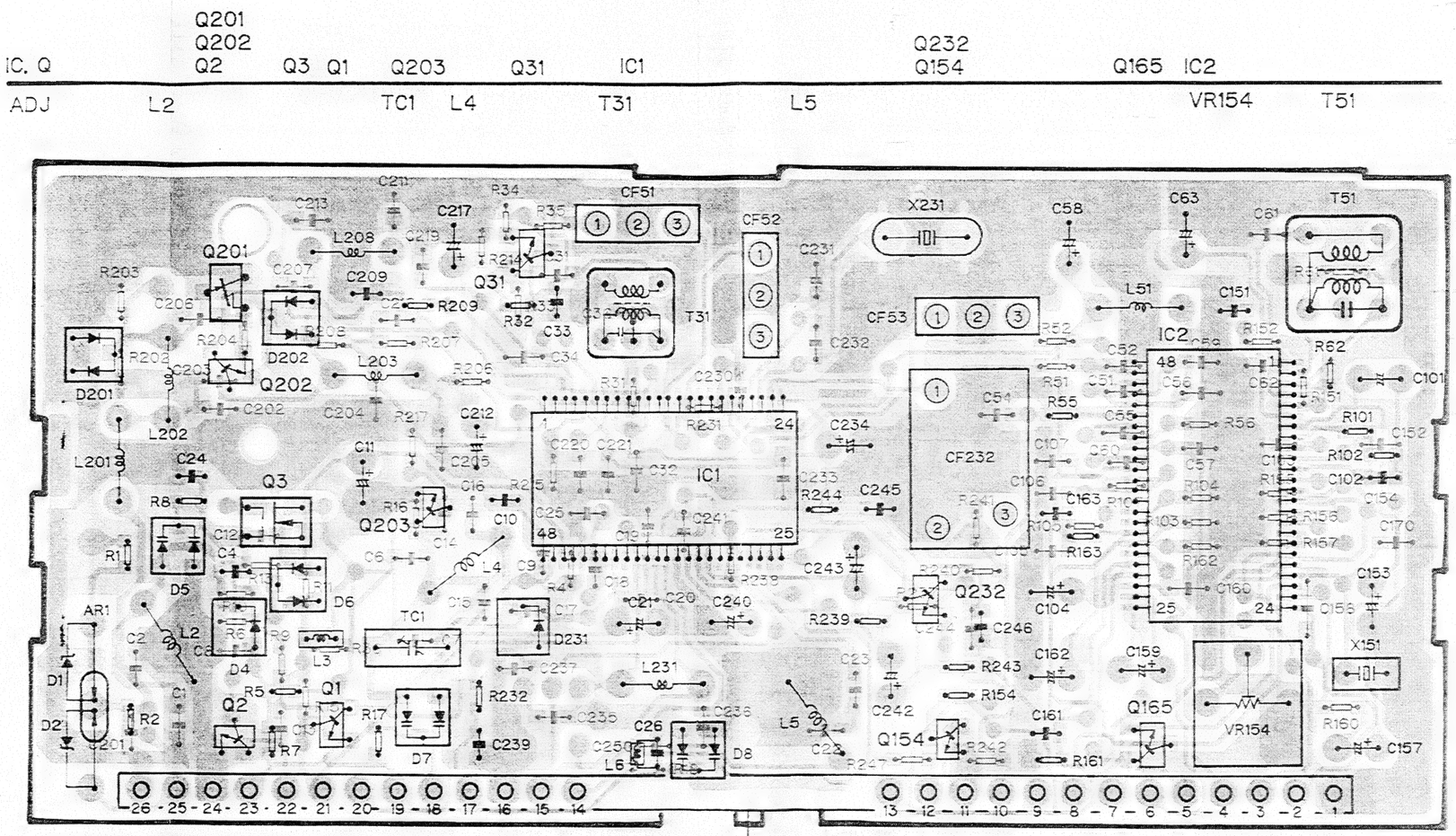


NOTE:
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

Fig.12

11.2 FM/AM TUNER UNIT

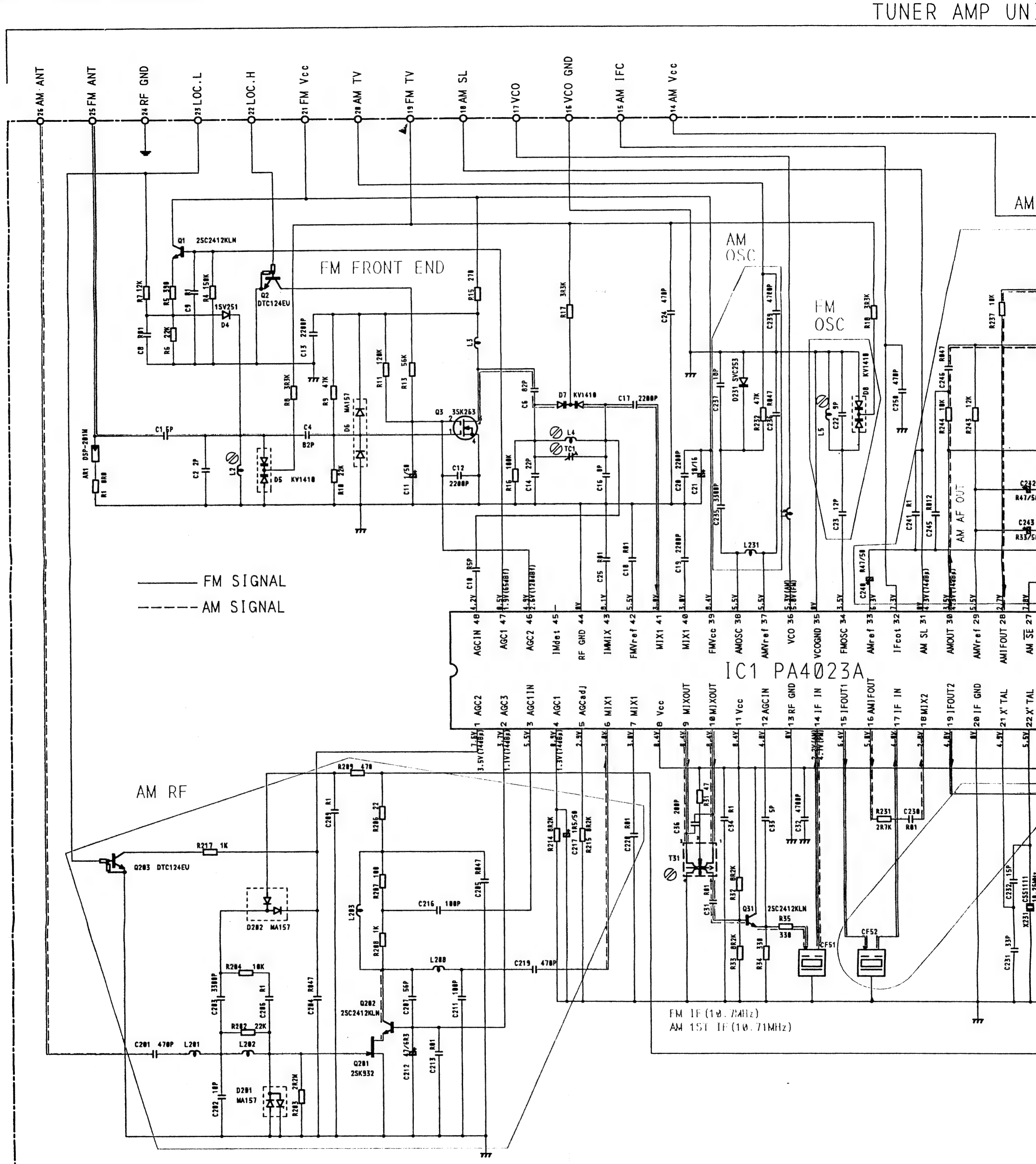
● Connection Diagram



NOTE:
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

Fig.13

Circuit Diagram (DEH-P825R/EW)



TUNER AMP UNIT

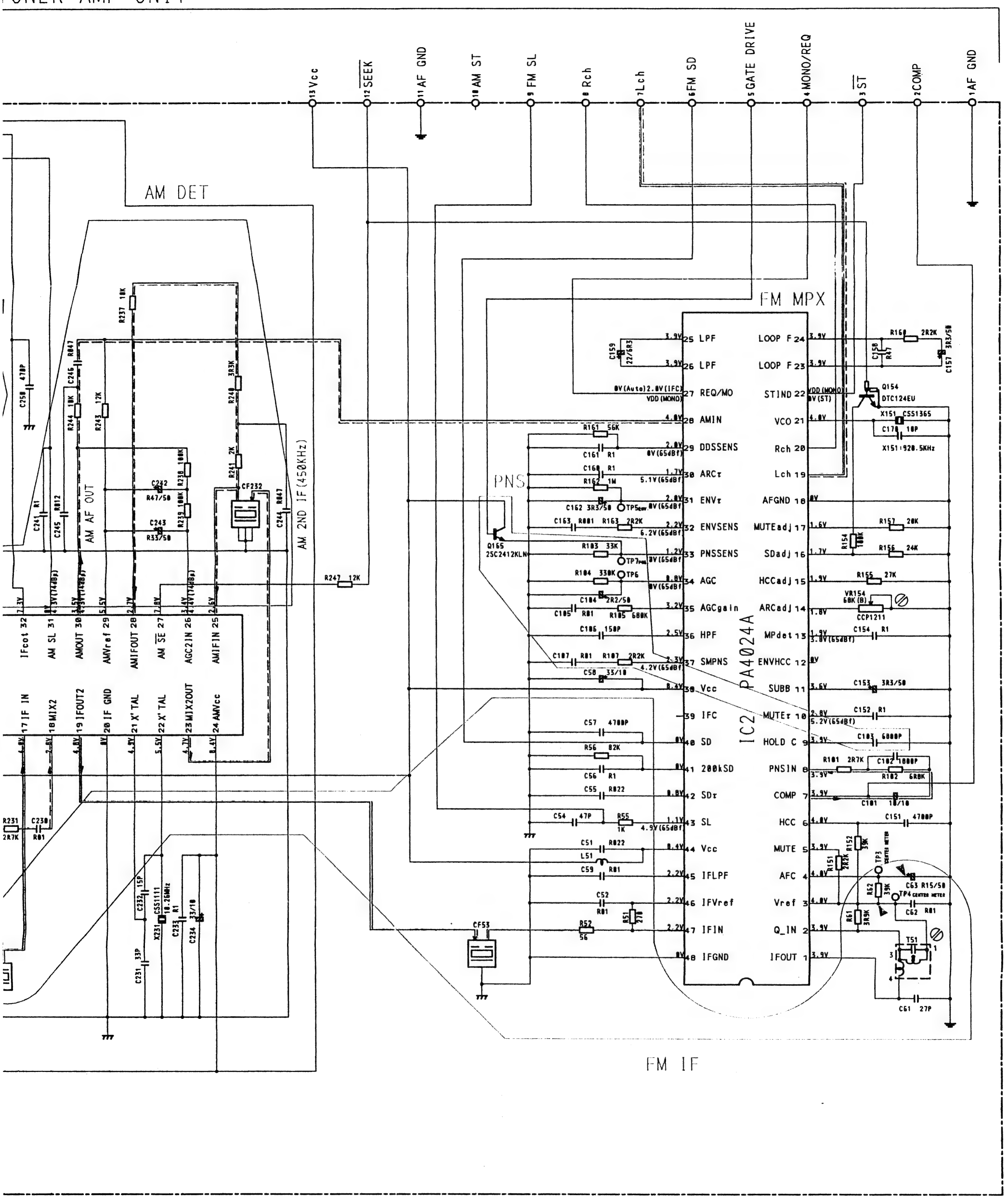
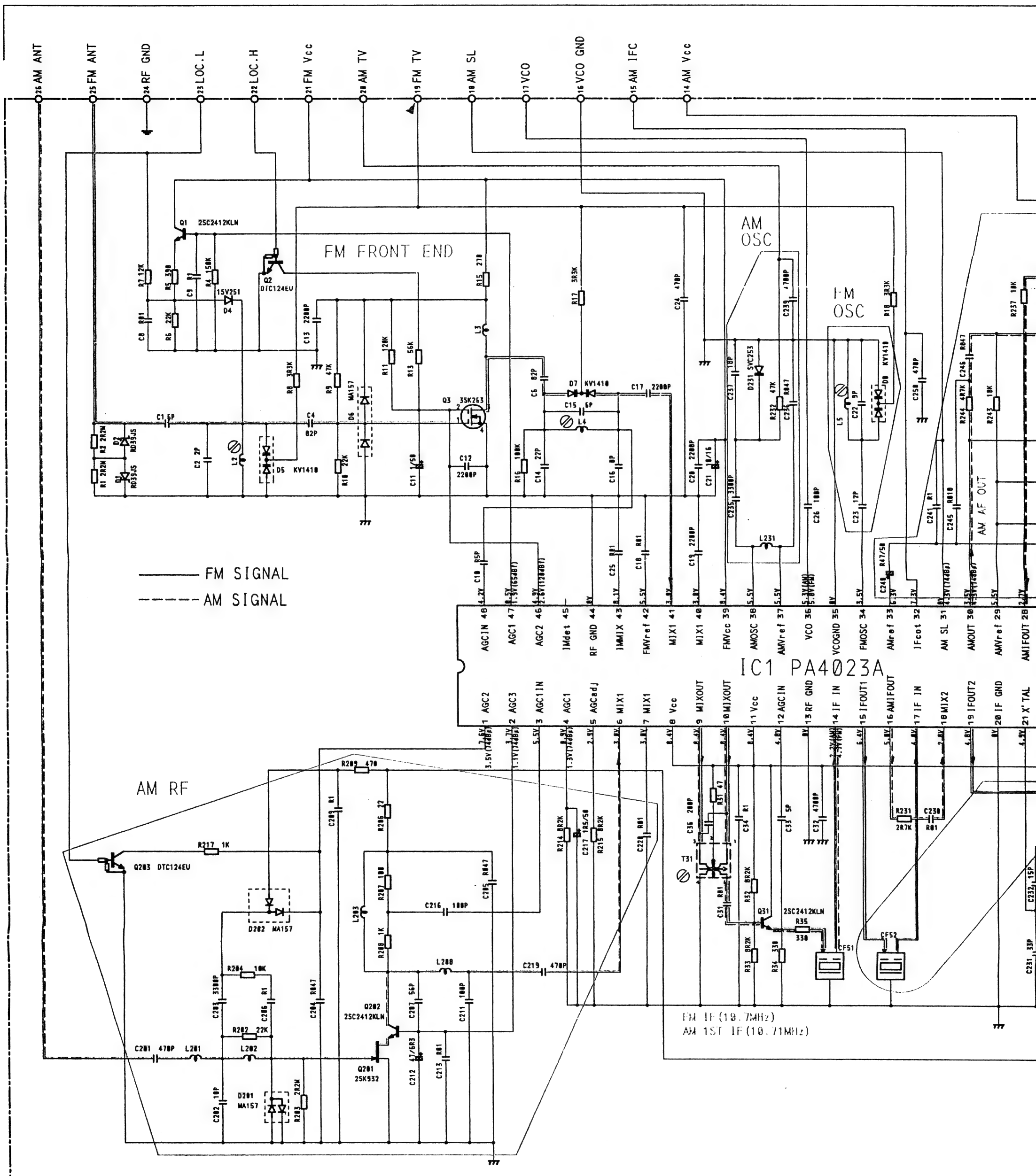
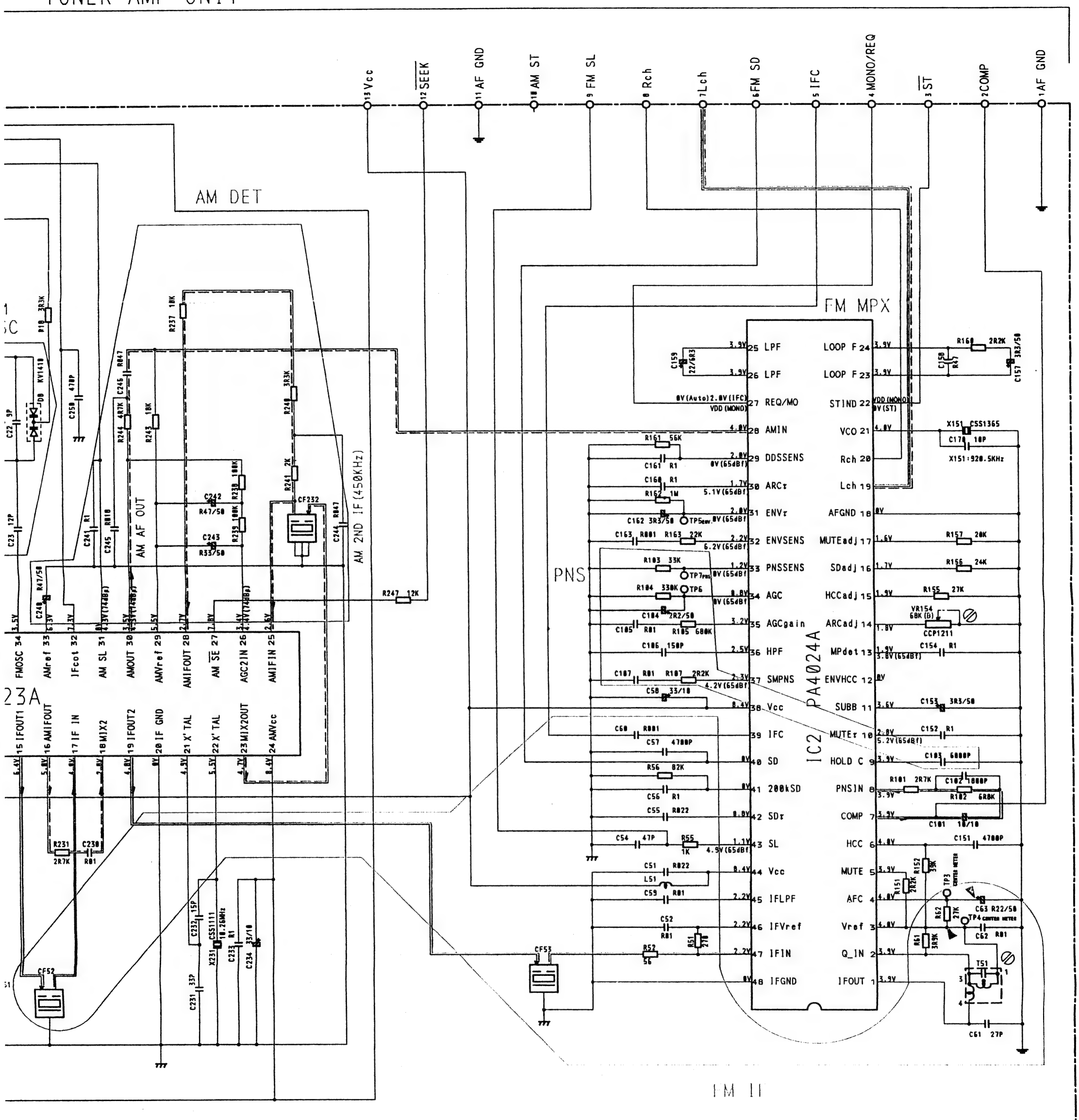


Fig.14

● **Circuit Diagram (DEH-P825/UC,P823/ES,DEX-P99/UC)**



TUNER AMP UNIT



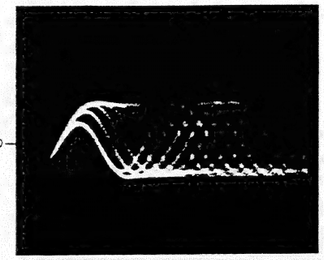
IM II

Fig.15

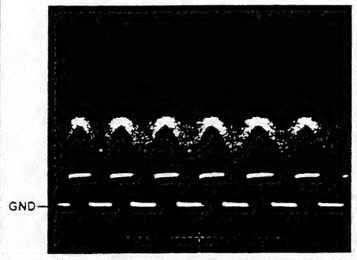
● Waveforms

Note: 1. The encircled numbers denote measuring pointes in the circuit diagram.
2. Reference voltage
REFO: 2.5V

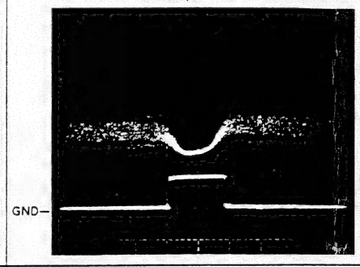
① RFO 0.5V/div. 0.5μs/div.
Normal mode: play



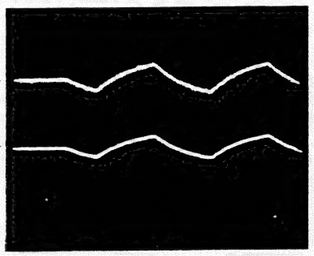
① CH1: RFO 1V/div.
② CH2: MIRR 5V/div. 0.5ms/div.
Test mode: Tracking open



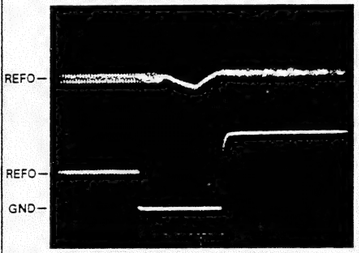
① CH1: RFO 1V/div.
② CH2: MIRR 5V/div. 0.5ms/div.
Normal mode: The defect part passes 800μm



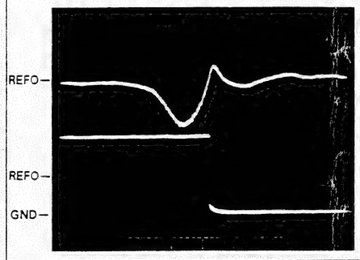
③ CH1: FIN 0.5V/div.
④ CH2: FO+ 2V/div. 0.2s/div.
Test mode: No disc, Focus close



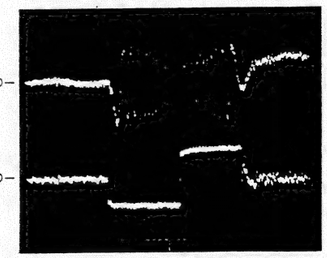
③ CH1: FIN 0.5V/div.
⑤ CH2: FOK 2V/div. 0.2s/div.
Normal mode: Focus close



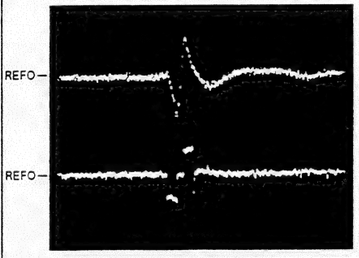
⑥ CH1: FEY 0.5V/div.
⑦ CH2: XSI 2V/div. 1ms/div.
Normal mode: Focus close



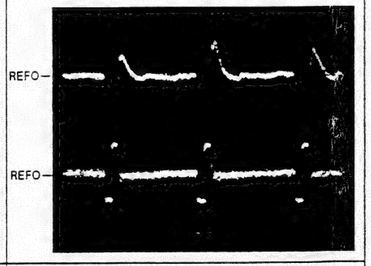
⑧ CH1: TEY 0.5V/div.
⑨ CH2: TIN 0.5V/div. 0.5ms/div.
Test mode: 32 tracks jump (FWD)



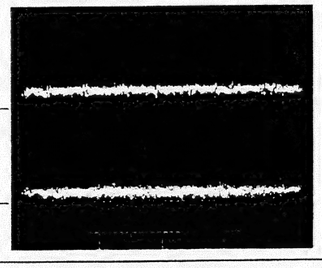
⑧ CH1: TEY 0.5V/div.
⑨ CH2: TIN 0.5V/div. 0.5ms/div.
Test mode: Single jump (FWD)



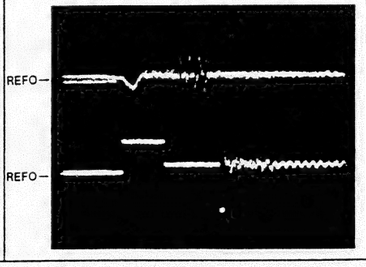
⑧ CH1: TEY 0.5V/div.
⑨ CH2: TIN 0.5V/div. 5ms/div.
Test mode: 100 tracks jump (FWD)



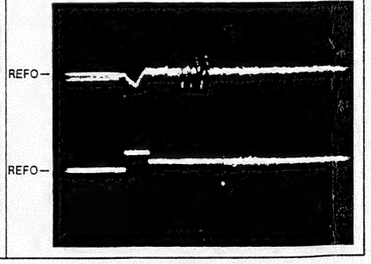
⑥ CH1: FEY 0.1V/div.
③ CH2: FIN 0.2V/div. 20ms/div.
Normal mode: Play



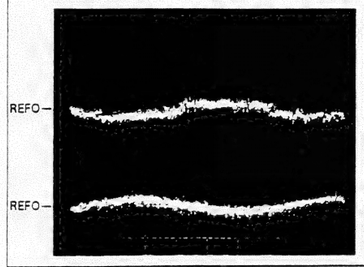
③ CH1: FIN 0.5V/div.
⑩ CH2: SIN 1V/div. 0.5s/div.
Normal mode: Focus close (12cm)



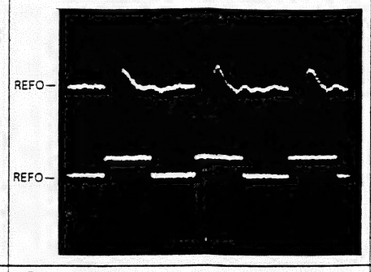
③ CH1: FIN 0.5V/div.
⑩ CH2: SIN 1V/div. 0.5s/div.
Normal mode: Focus close (8cm)



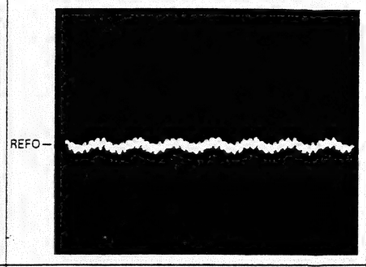
⑧ CH1: TEY 0.2V/div.
⑨ CH2: TIN 0.2V/div. 20ms/div.
Normal mode: Play



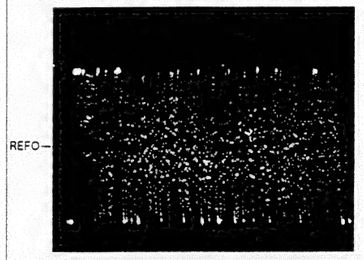
⑧ CH1: TEY 0.5V/div.
⑪ CH2: SD 0.5V/div. 5ms/div.



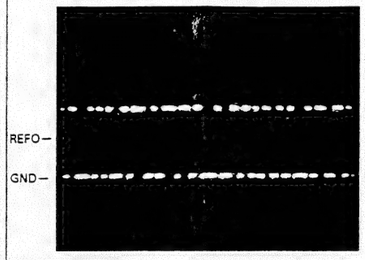
⑩ SIN 0.5V/div. 0.1s/div.
Normal mode: Play (12cm)



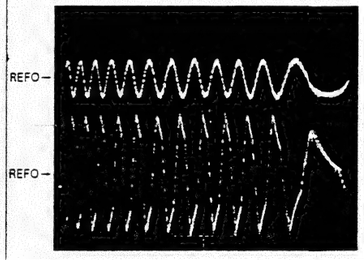
⑩ SIN 0.5V/div. 10ms/div.
Long Search (12cm)



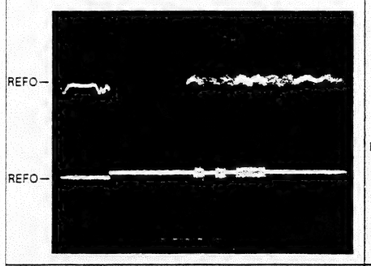
⑫ EFM 1V/div. 5μs/div.
Play



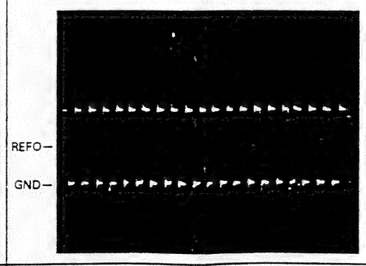
⑧ CH1: TEY 1V/div.
⑬ CH2: TEC 1V/div. 2ms/div.
Test mode: Focus close
Tracking open



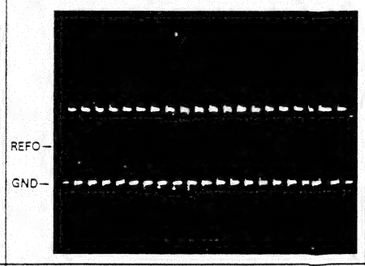
⑧ CH1: TEY 0.5V/div.
⑥ CH2: FEY 0.5V/div. 0.2s/div.
Normal mode: AGC after focus close



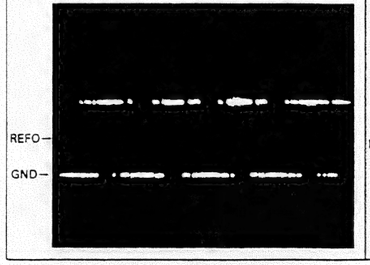
⑭ PLCK 2V/div. 0.5μs/div.
Play



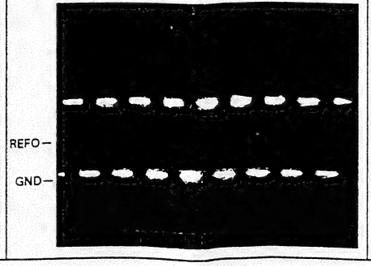
⑮ SCKO 2V/div. 1μs/div.
Play



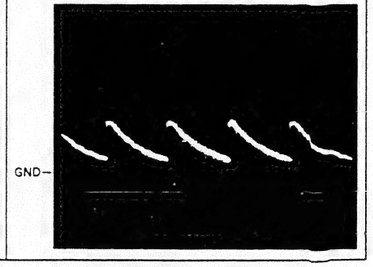
⑯ Dout 2V/div. 10μs/div.
Play

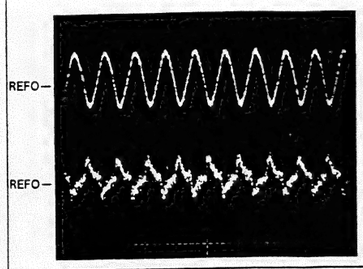
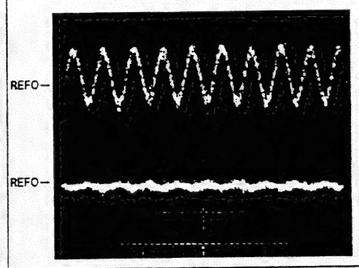
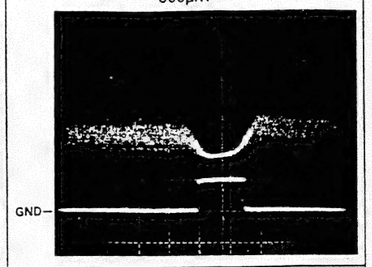
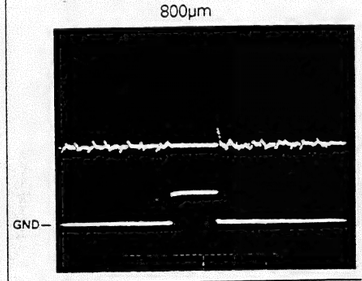


⑰ LRCK 2V/div. 20μs/div.



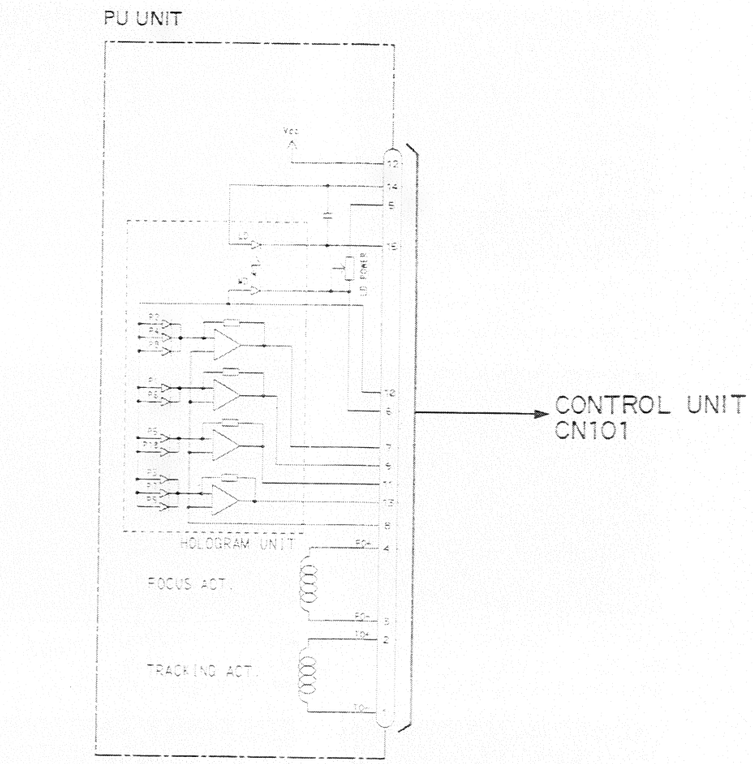
⑱ VD 5V/div. 50ms/div.
Normal mode: No disc

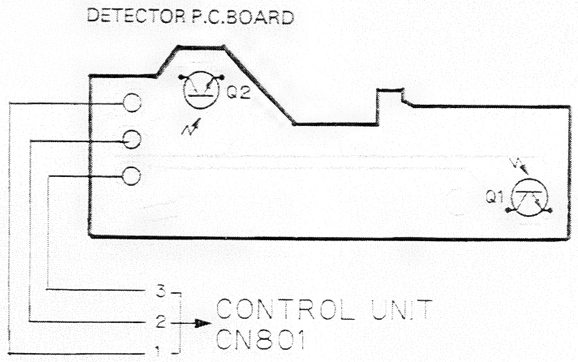


⑥ CH1: FEY 0.2V/div. ③ CH2: FIN 0.5V/div. 1ms/div. Normal mode: During AGC 	⑧ CH1: TEY 0.2V/div. ⑨ CH2: TIN 0.5V/div. 1ms/div. Normal mode: During AGC 	① CH1: RFO 1V/div. ㉑ CH2: HOLD 5V/div. 0.5ms/div. Normal mode: The defect part passes 800µm 
③ CH1: FIN 1V/div. ㉑ CH2: HOLD 5V/div. 0.5ms/div. Normal mode: The defect part passes 800µm 		

11.3 CD MECHANISM MODULE

● **Connection Diagram**





CONTROL UNIT

IC, Q

IC302
IC301

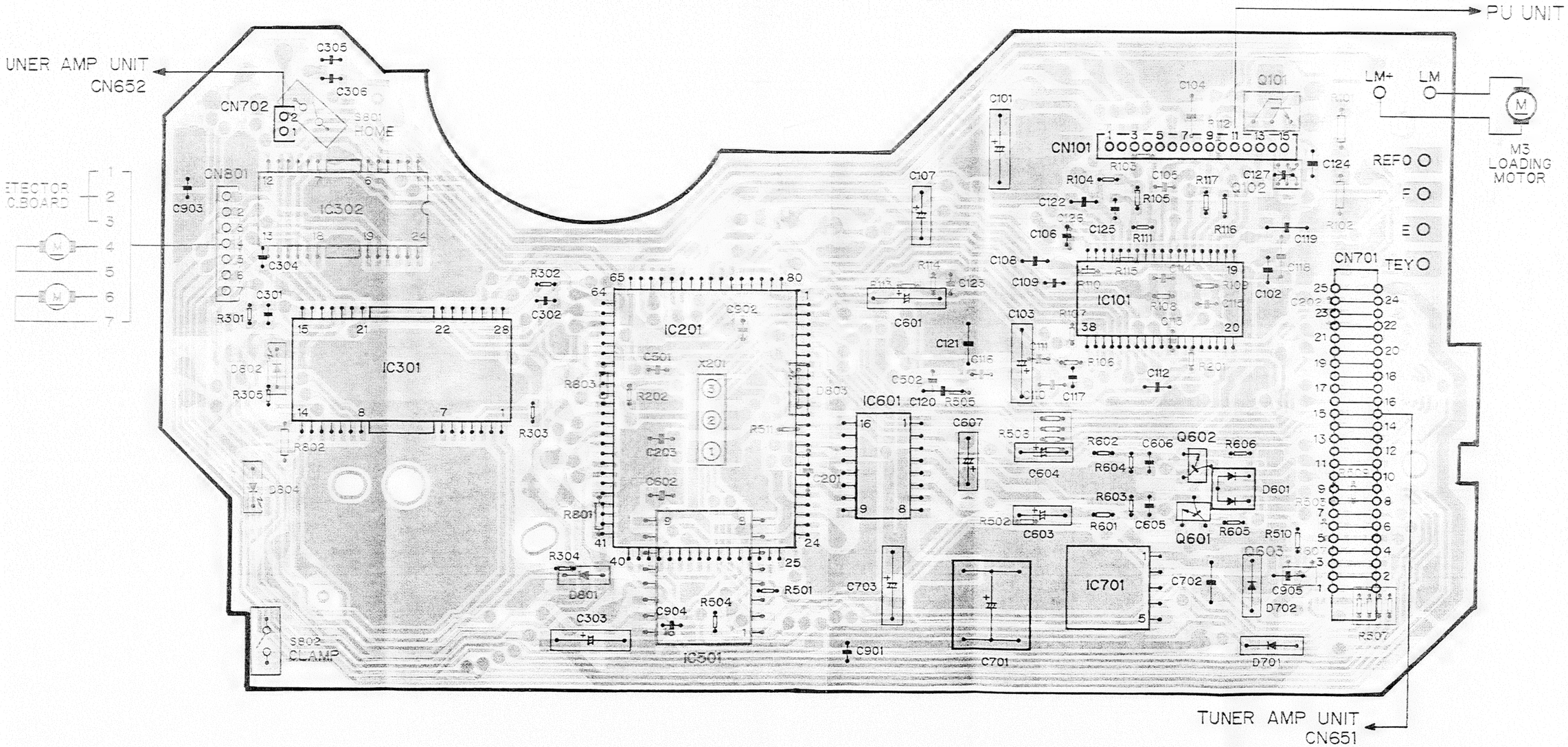
IC201
IC501

IC601

IC701

IC101
Q602
Q601

Q101
Q102
Q603

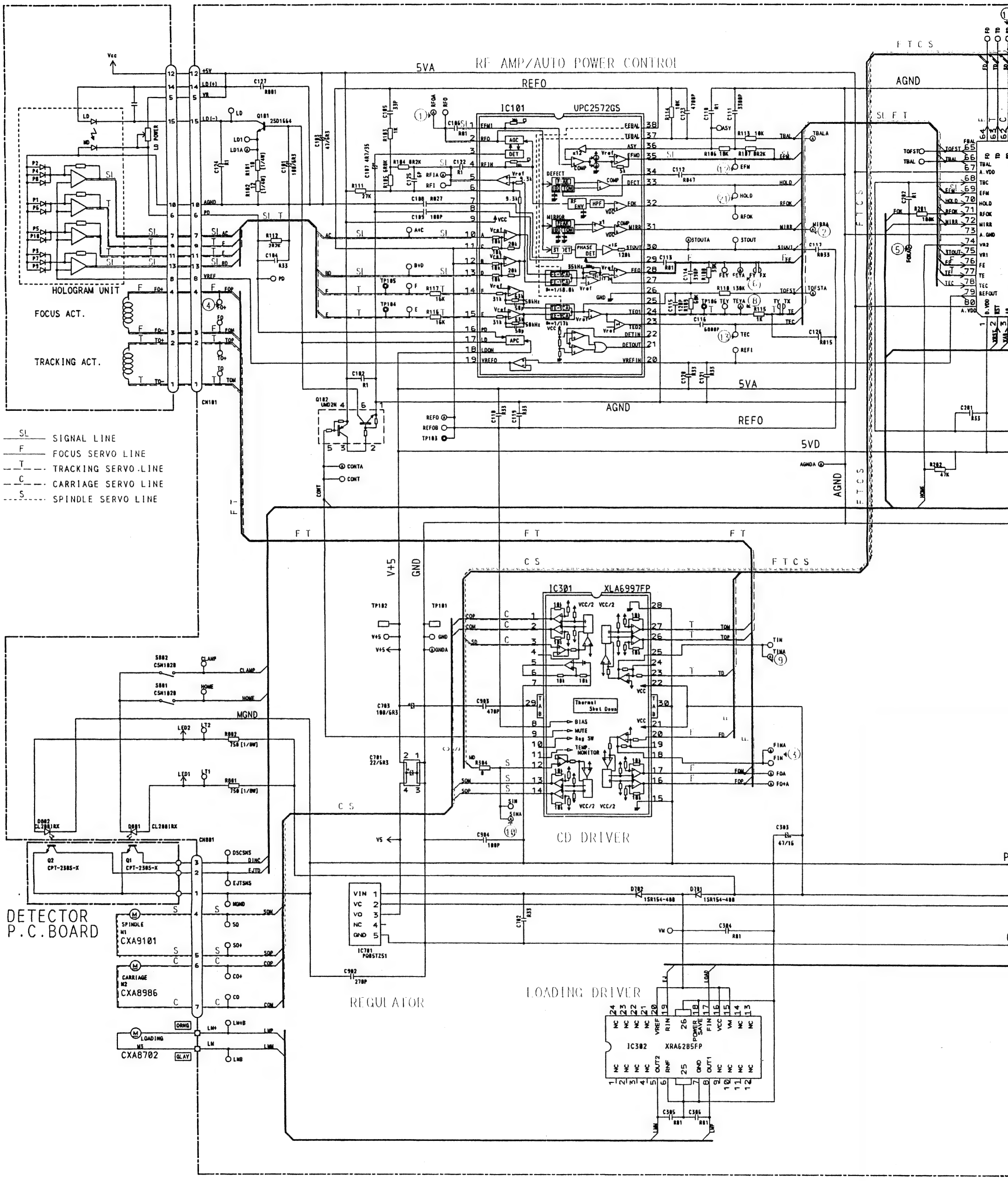


NOTE:
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

Fig.16

Circuit Diagram

PU UNIT(CGY1070) CONTROL UNIT



SWITCHES:
CONTROL UNIT
S801:HOME SWITCH·····ON-OFF
S802:CLAMP SWITCH·····ON-OFF
The underlined indicates the switch position.

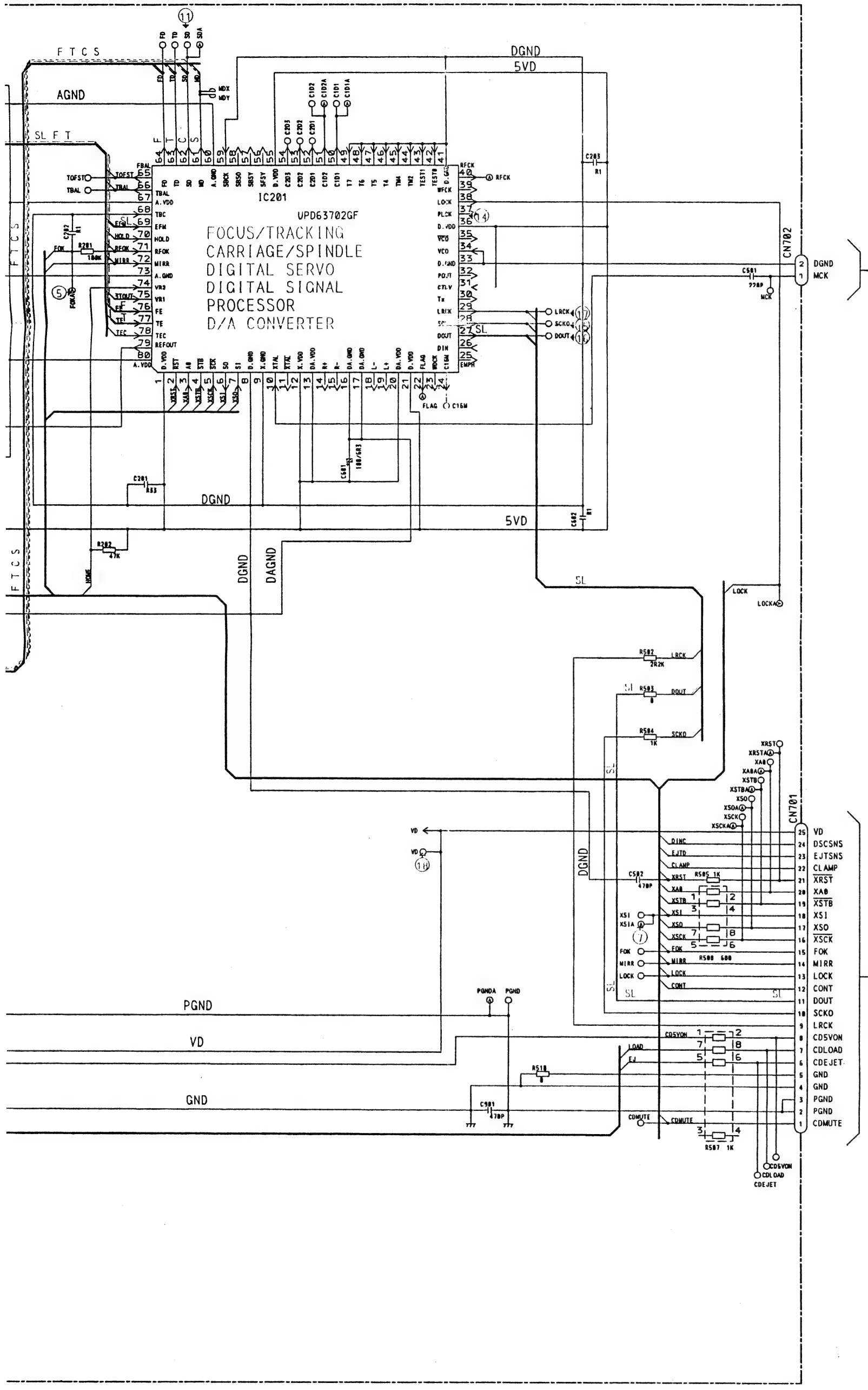

IC201
UPD63702GF
FOCUS/TRACKING
CARRIAGE/SPINDLE
DIGITAL SERVO
DIGITAL SIGNAL
PROCESSOR
D/A CONVERTER
FTCS
SLFT
AGND
DGND
5VD
DAGND
PGND
VD
GND
SL
CN702
DGND
MCK
TUNER AMP UNIT
CN652
CN701
VD
DSCSNS
EJTSNS
CLAMP
XRST
XA0
XSTB
XSI
XSO
XSCK
FOK
MIRR
LOCK
CONT
DOUT
SCKO
LRCK
CD5VON
CDLOAD
CDEJET
GND
PGND
CDMUTE
TUNER AMP UNIT
CN651

Fig.17

11.4 INVERTER UNIT

● **Circuit Diagram**

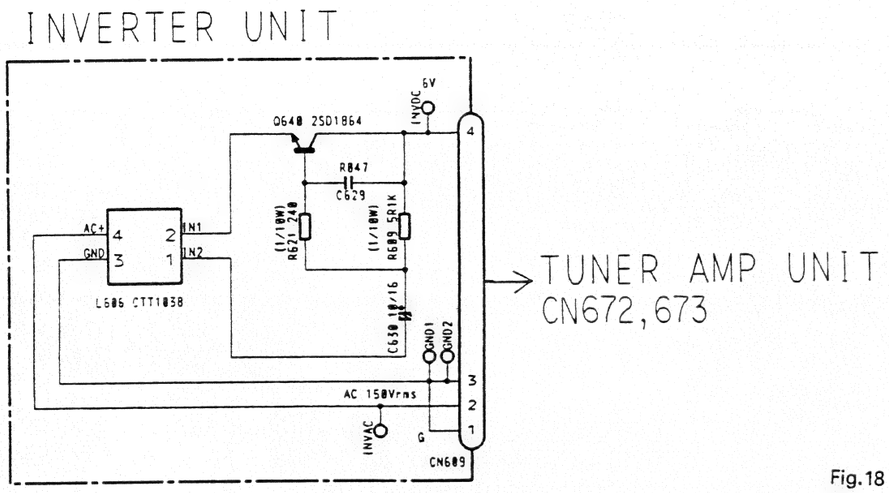


Fig.18

● **Connection Diagram**

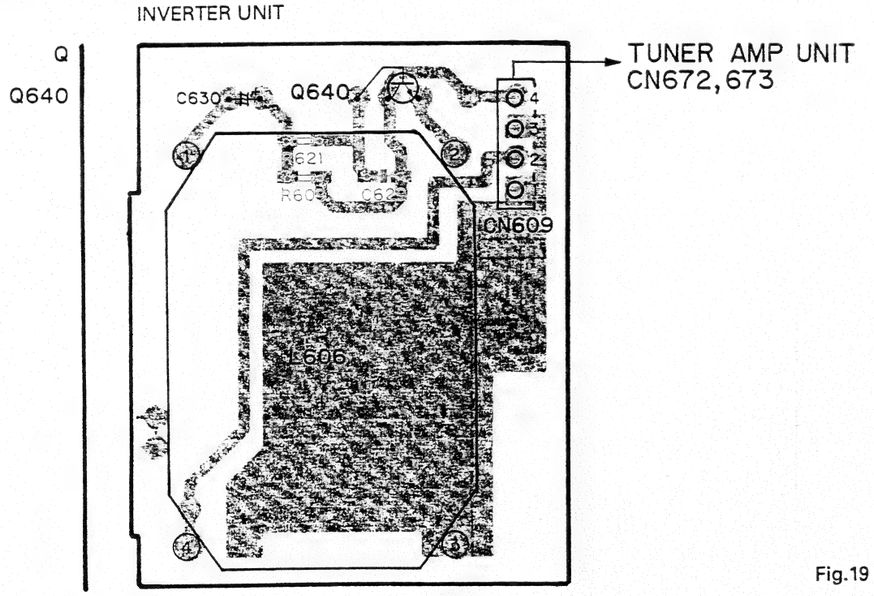


Fig.19

11.5 KEY BOARD P.C.BOARD

● **Connection Diagram**

IC, Q IC905 IC901 Q903 IC902

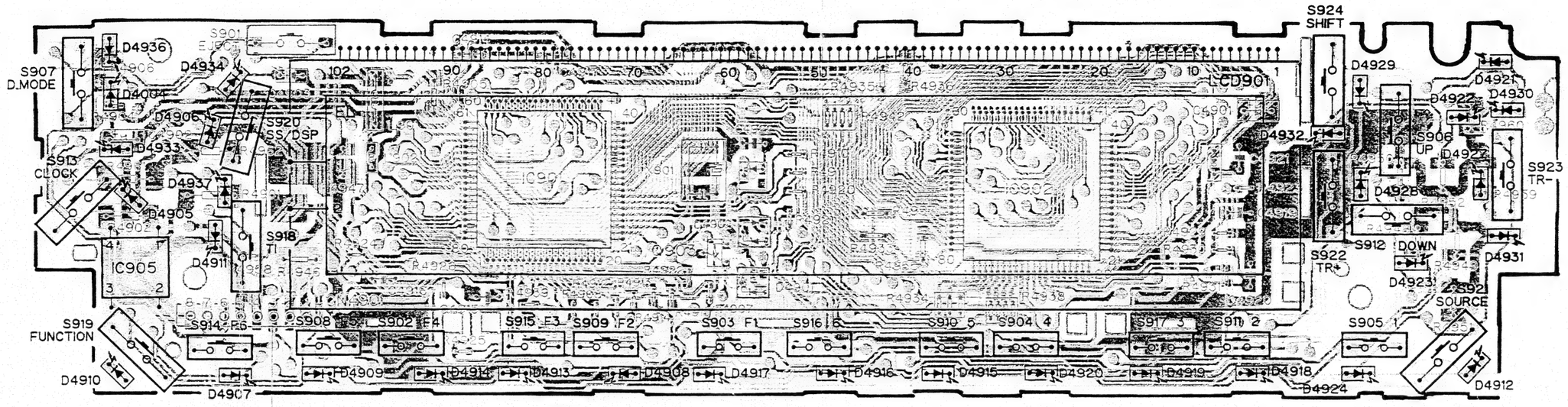


Fig.20

TUNER AMP UNIT
CN671

● **Circuit Diagram**

KEY BOARD P.C.BOARD

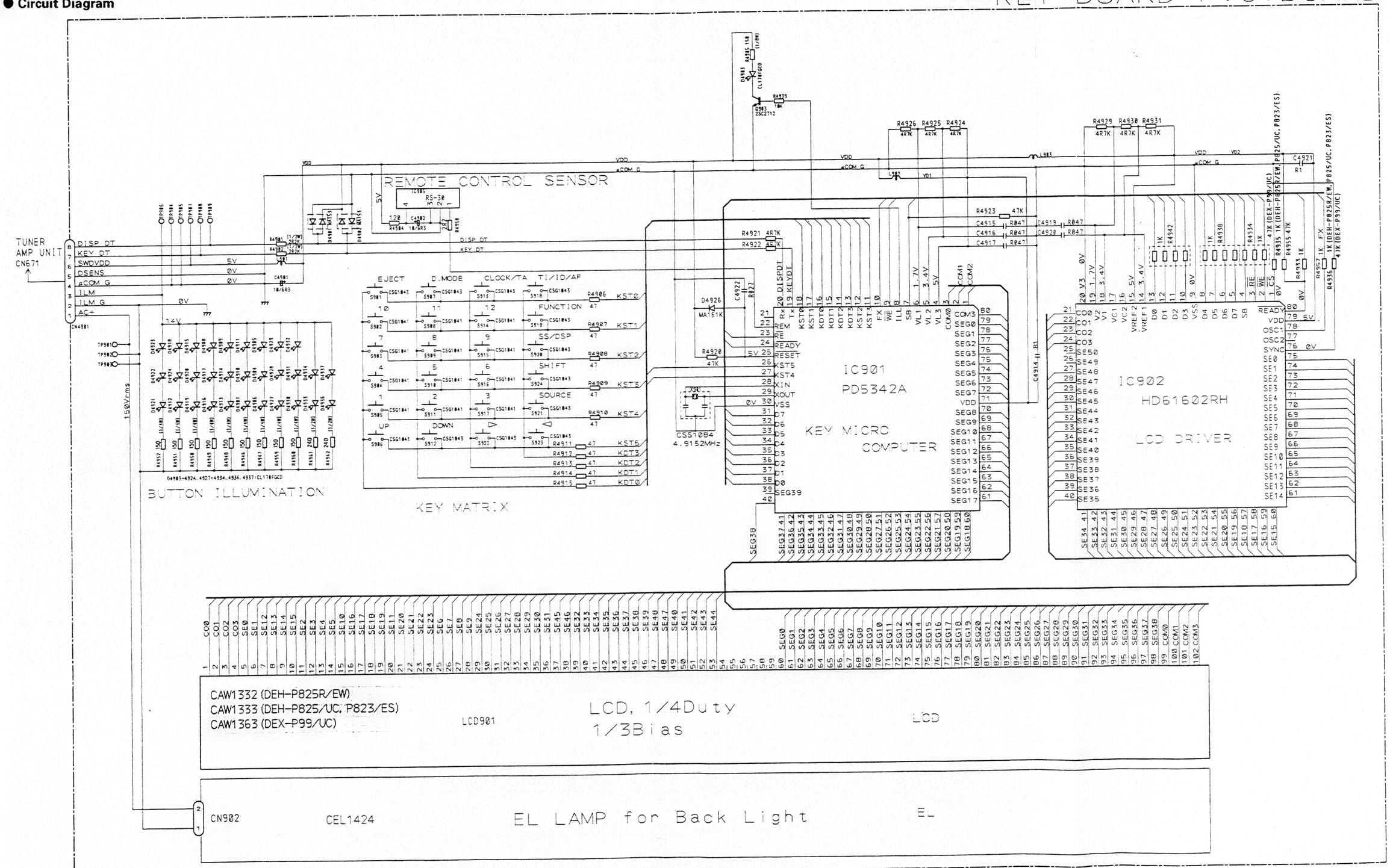


Fig.21

11.6 HIGH OUTPUT UNIT,DC-DC CONVERTER UNIT

● **Circuit Diagram (DEX-P99/UC)**

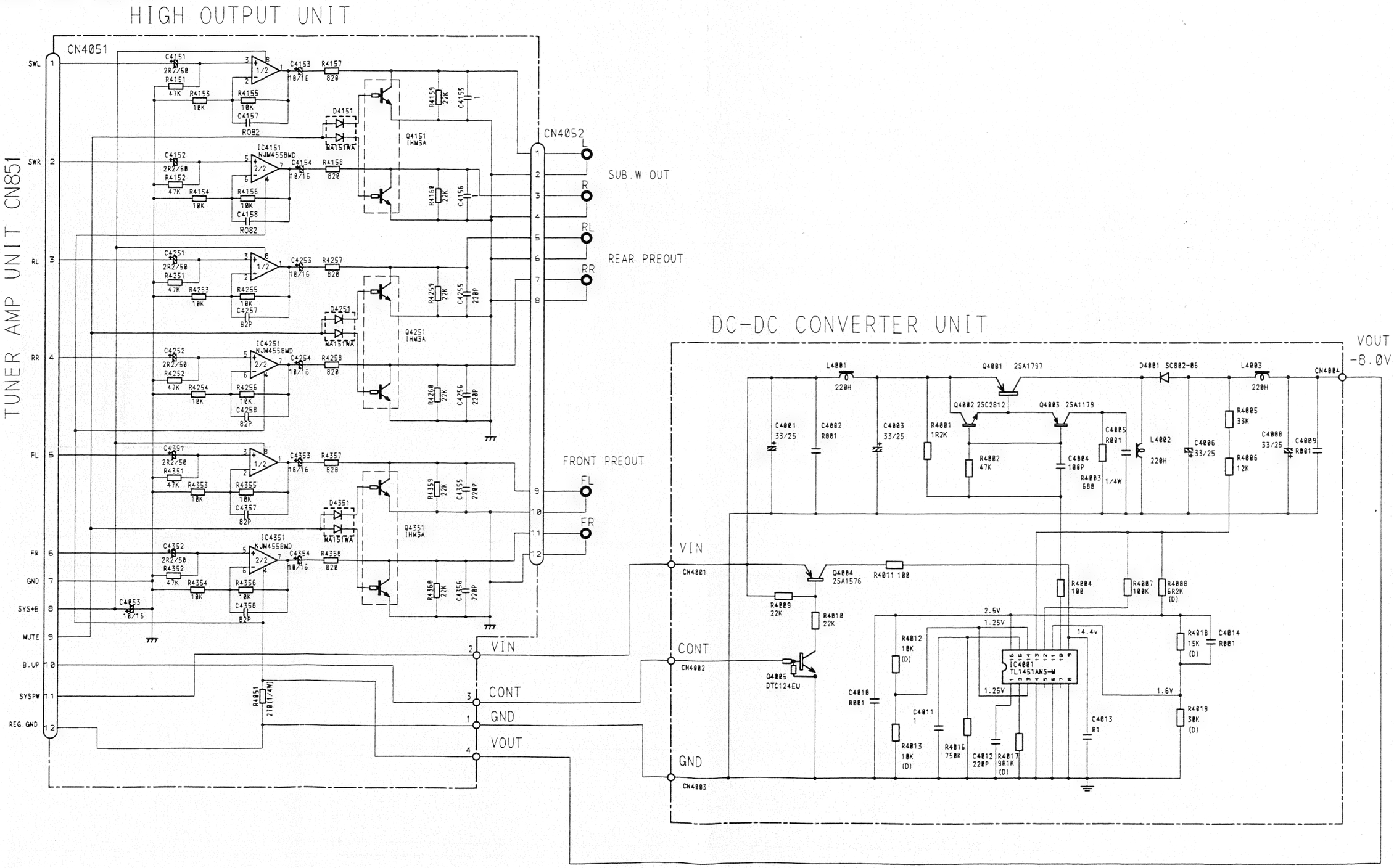


Fig.22

● **Connection Diagram(HIGH OUTPUT UNIT)**

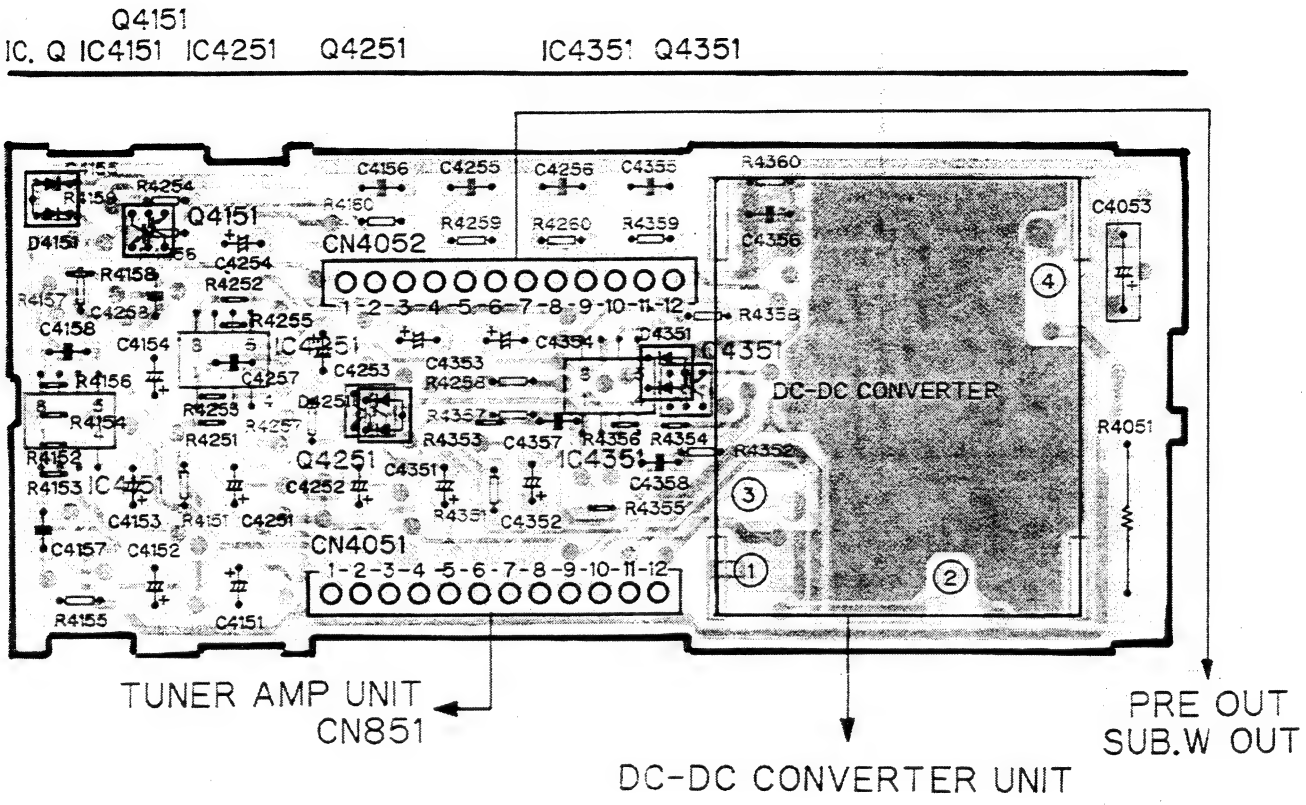


Fig.23

● **Connection Diagram(DC-DC CONVERTER UNIT)**

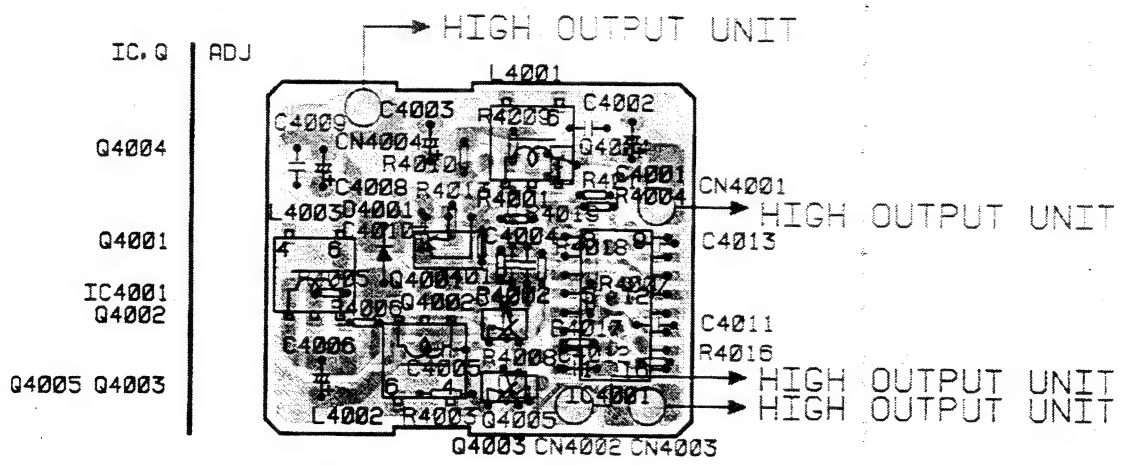
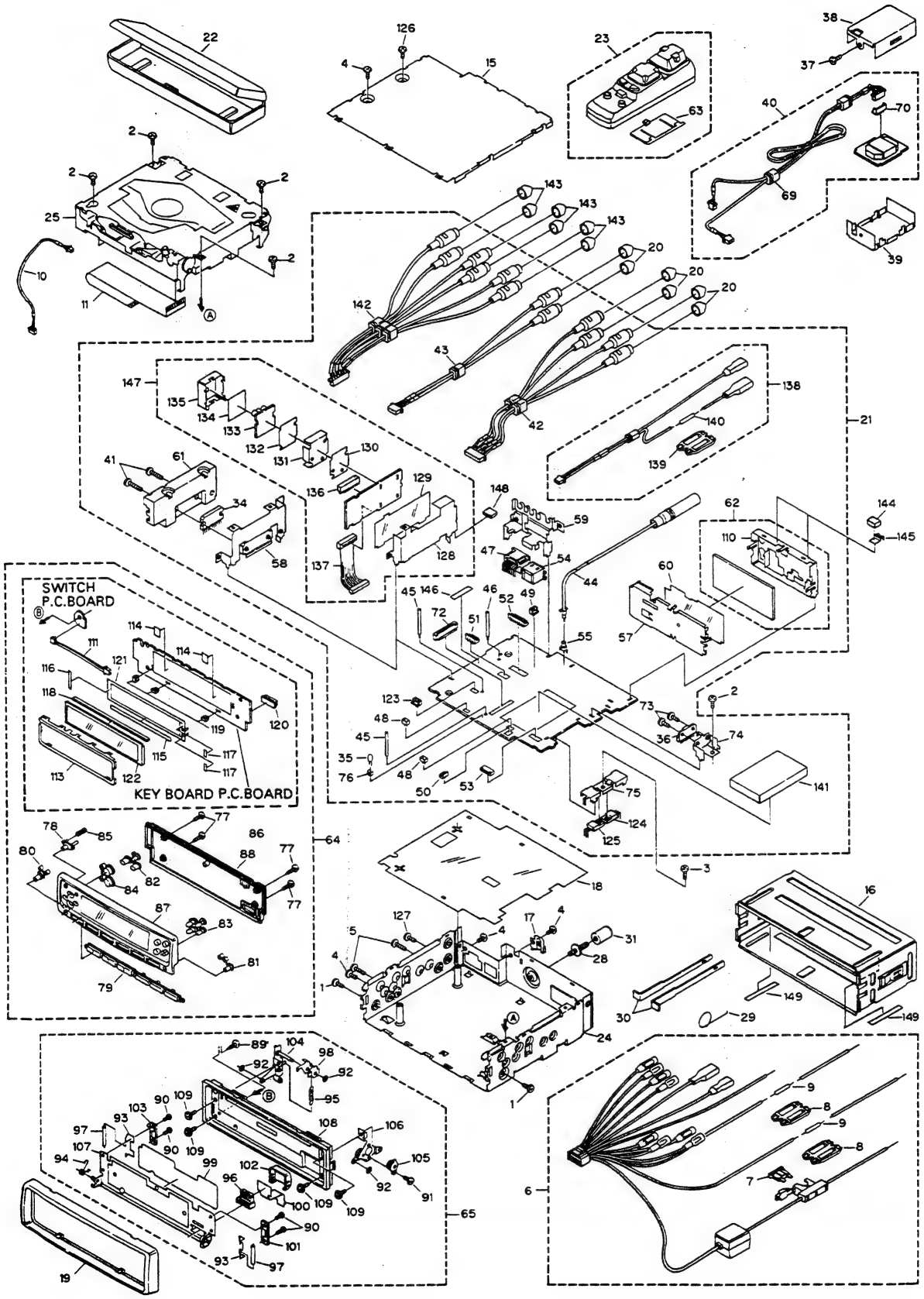


Fig.24

12. EXPLODED VIEW AND PARTS LIST

12.1 CHASSIS



NOTE:

● Parts marked by " * "are generally unavailable because they are not in our Master Spare Parts List.

● **Parts List (DEH-P825R/EW)**

Mark No	Description	Part No
1	Screw	BMZ30P040FMC
2	Screw	BSZ26P050FMC
3	Screw	BSZ26P080FMC
4	Screw	BSZ30P060FMC
5	Screw	BMZ30P160FMC
6	Cord Assy	CDE4648
7	Fuse(10A)	CEK1136
8	Cap	CNS1472
9	Resistor	RS1/2P102JL
10	Cord	CDE4806
11	Connector	CDE4864
12-14	*****	
15	Case	CNB2063
16	Holder	CNC4946
17	Holder	CNC4963
18	Insulator	CNM4523
19	Panel	CNS3113
20	Cap	CNV2680
21	Tuner Amp Unit	CWX1923
22	Case Assy	CXA7194
23	Remote Control Assy	CXA7610
24	Chassis Unit	CXA8212
25	CD Mechanism Module	CXK5011
26-27	*****	
28	Screw	CBA1284
29	Spring	CBH-865
30	Handle	CNC4947
31	Bush	CNV1009
32-33	*****	
34	IC(IC551)	PAL003A
35	Lamp(IL671)	CEL1150
36	IC(IC971)	PA2024A
37	Screw	BSZ26P050FMC
38	Holder	CNC5735
39	Holder	CNC5736
40	Inverter Unit	CWM4531
41	Screw	BSZ26P140FMC
42	Cord	CDE4993
43	Cord	CDE4995
44	Antenna Cable	CDH1146
45	Clamper	CEF1004
46	Clamper	CEF1006
47	Plug(CN901)	CKM1187
48	Plug(CN652,674)	CKS-783
49	-----	

Mark No	Description	Part No
50	Plug(CN673)	CKS1236
51	Plug(CN882)	CKS1238
52	Plug(CN881)	CKS1242
53	Connector(CN671)	CKS2212
54	Connector(CN451)	CKS2480
55	Mini Pin Jack(CN502)	CKX1046
56	*****	
57	Holder	CNC6526
58	Bracket	CNC6656
59	Bracket	CNC6558
60	Insulator	CNM4684
61	Heat Sink	CNR1408
62	FM/AM Tuner Unit	CWE1416
63	Cover	CNS3477
64	Detach Grille Assy	CXA8200
65	Panel Assy	CXA8711
66-68	*****	
69	Cord	CDE4998
70	Plug(CN609)	CKS1224
71	*****	
72	Connector(CN651)	CKS2774
73	Screw	BSZ30P060FMC
74	Holder	CNC6141
75	Holder	CNC6431
76	Holder	CNV1906
77	Screw	BPZ20P080FZK
78	Button(OPEN)	CAC4475
79	Button(1-12)	CAC4476
80	Button(SOURCE)	CAC4478
81	Button(FUNCTION)	CAC4479
82	Button(◁,▷,SHIFT)	CAC4481
83	Button(SS,DM,AF,TA)	CAC4511
84	Button(+,-)	CAC4648
85	Spring	CBH1844
86	Key Board Unit	CWM4471
87	Grille Unit	CXA8322
88	Cover Unit	CXA8707
89	Screw	BPZ20P060FMC
90	Screw(M2x3)	CBA1082
91	Screw(M2x4)	CBA1176
92	Washer	CBF1001
93	Spring	CBH1528
94	Spring	CBH1660
95	Spring	CBH1696
96	Connector	CKS2780

Mark No.	Description	Part No
97	Roller	CLA2041
98	Arm	CNC5640
99	Sheet	CNM4179
100	P.C.Board	CNP3847
101	Holder	CNV2141
102	Cover	CNV3965
103	Holder	CNV4105
104	Holder Unit	CXA7077
105	Damper Unit	CXA7159
106	Holder Unit	CXA7794
107	Holder Unit	CXA7959
108	Panel Unit	CXA8708
109	Screw	PMS20P030FZK
110	Holder	CNC6555
111	Cord	CDE4387
112	*****	
113	Holder	CNC6142
114	Film	CNM4349
* 115	Spacer	CNM4751
* 116	Spacer	CNM4752
* 117	Spacer	CNM4753
118	Connector	CNV4430
119	Guide	CNV4431
120	Connector(CN4901)	CKS2733
121	EL(CN902)	CEL1424
122	LCD(LCD901)	CAW1332
123	Plug(CN672)	CKS1222
124	IC(IC991)	NJM78M05A
125	Transistor(Q982)	2SD2396
126	Screw	BSZ30P060FMC
127-140	*****	
141	DSP Module	CWV1062
142,143	*****	
144	Cushion	CNM4387
145	Holder	CNC6469
146-148	*****	
* 149	Spacer	CNM4888

● The DEH-P825/UC, DEH-P823/ES, and DEX-P99/UC Parts Lists enumerate the parts which differ from those enumerated in the DEH-P825/UC Parts List only. The parts other than those enumerated in the former are identical with those in the latter, to which you are requested to refer, accordingly. The DEH-P825R/EW Parts List is given on page 82.

Mark No.	Description	DEH-P825R/EW Part No.	DEH-P825/UC Part No.	DEH-P823/ES Part No.	DEX-P99/UC Part No.
5	Screw	BMZ30P160FMC	BMZ30P160FMC	BMZ30P160FMC	*****
6	Cord Assy	CDE4648	CDE4976	CDE4648	*****
6	Cord	*****	*****	*****	CDE4970
7	Fuse(10A)	CEK1136	CEK1136	CEK1136	*****
7	Fuse(3A)	*****	*****	*****	CEK1134
15	Case	CNB2063	CNB2063	CNB2063	CNB2055
20	Cap	CNV2680	CNV2680	CNV2680	*****
21	Tuner Amp Unit	CWX1923	CWX1924	CWX1926	CWX1925
24	Chassis Unit	CXA8212	CXA8361	CXA8361	CXA8532
34	IC(IC551)	PAL003A	PAL003A	PAL003A	*****
41	Screw	BSZ26P140FMC	BSZ26P140FMC	BSZ26P140FMC	*****
42	Cord	CDE4993	CDE4993	CDE4993	*****
43	Cord	CDE4995	CDE4995	CDE4995	*****
49	Plug(CN961)	*****	*****	*****	CKS1222
51	Plug(CN882)	CKS1238	CKS1238	CKS1238	*****
52	Plug(CN881)	CKS1242	CKS1242	CKS1242	*****
58	Bracket	CNC6656	CNC6656	CNC6656	*****
59	Bracket	CNC6558	CNC6558	CNC6559	CNC6557
61	Heat Sink	CNR1408	CNR1408	CNR1408	*****
62	FM/AM Tuner Unit	CWE1416	CWE1417	CWE1417	CWE1417

Mark No.	Description	DEH-P825R/EW Part No.	DEH-P825/UC Part No.	DEH-P823/ES Part No.	DEX-P99/UC Part No.
64	Detach Grille Assy	CXA8200	CXA8201	CXA8203	CXA8202
65	Panel Assy	CXA8711	CXA8711	CXA8711	CXA8327
79	Button(1-12)	CAC4476	CAC4544	CAC4545	CAC4544
83	Button(SS,DM,AF,TA)	CAC4511	*****	*****	*****
83	Button(SS,DM,ID,CLOCK)	*****	CAC4480	*****	*****
83	Button(SS,DM,BSM,CLOCK)	*****	*****	CAC4526	*****
83	Button(DSP,DM,ID,CLOCK)	*****	*****	*****	CAC4525
86	Key Board Unit	CWM4471	CWM4472	CWM4472	CWM4473
87	Grille Unit	CXA8322	CXA8323	CXA8325	CXA8324
108	Panel Unit	CXA8708	CXA8708	CXA8708	CXA8347
122	LCD(LCD901)	CAW1332	CAW1333	CAW1333	CAW1363
126	Screw	BSZ30P060FMC	BSZ30P060FMC	BSZ30P060FMC	*****
127	Screw	*****	*****	*****	BSZ30P060FMC
128	Holder	*****	*****	*****	CNC6143
129	Insulator	*****	*****	*****	CNM4573
130	Insulator	*****	*****	*****	CNM4760
131	Shield	*****	*****	*****	CNC6274
132	Insulator	*****	*****	*****	CNM4814
133	DC-DC Converter Unit	*****	*****	*****	CWM4538
134	Insulator	*****	*****	*****	CNM4610
135	Shield	*****	*****	*****	CNC6224
136	Plug(CN4052)	*****	*****	*****	CKS1059
137	Cord(CN4051)	*****	*****	*****	CDE4807
138	Cord	*****	*****	*****	CDE4786
139	Cap	*****	*****	*****	CNS1472
140	Resistor	*****	*****	*****	RS1/2P102JL
142	Cord	*****	*****	*****	CDE4801
143	Cap	*****	*****	*****	CNV2680
146	Insulator	*****	*****	*****	CNM4815
147	High Output Unit	*****	*****	*****	CWX1922
148	Spacer	*****	*****	*****	CNM4868

12.2 CD MECHANISM MODULE

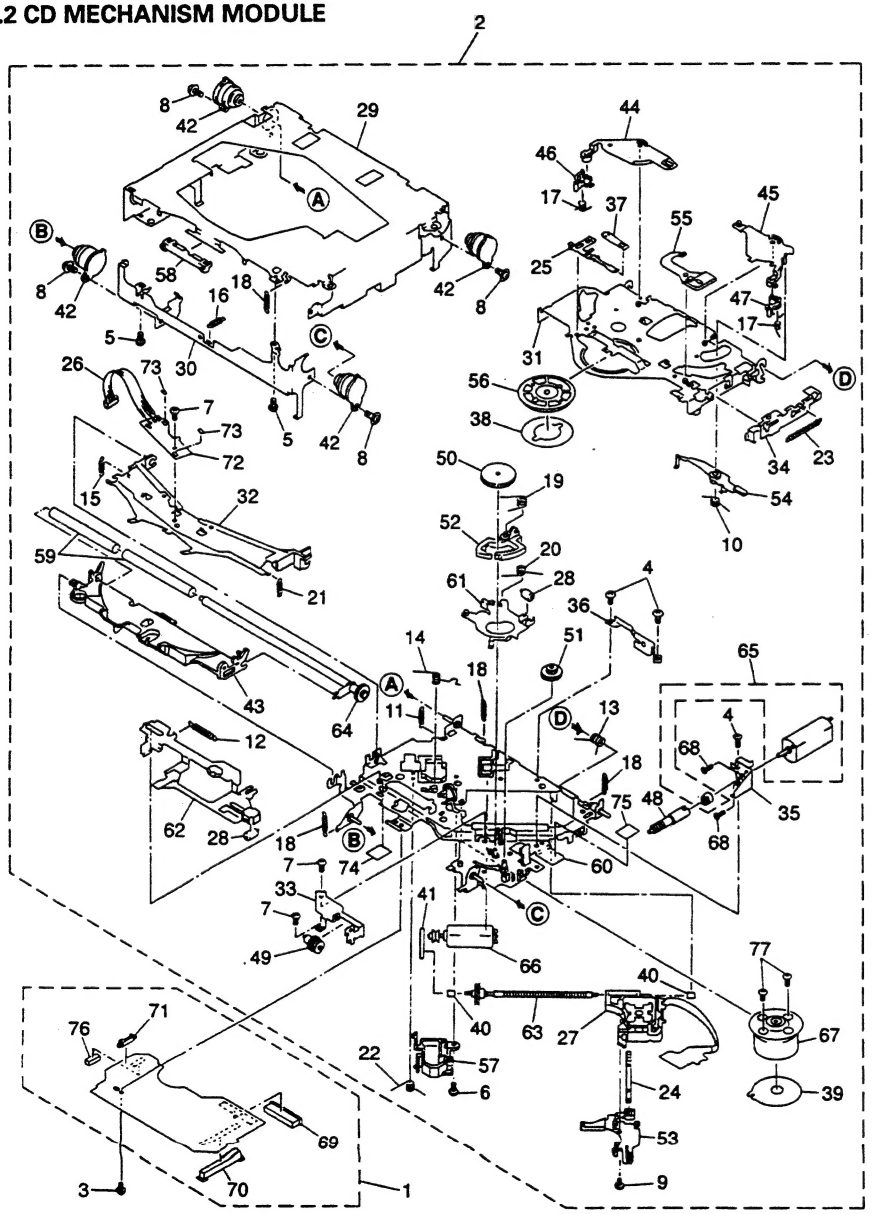


Fig.26

DEH-P825R,P825,P823,DEX-P99

● **Parts List**

Mark	No.	Description	Part No.
	1	Control Unit	CWX1964
	2	CD Mechanism Unit	CXA8880
	3	Screw	PMS26P035FMC
	4	Screw	BMZ20P030FMC
	5	Screw	BSZ20P040FMC
	6	Screw(M2×3)	CBA1077
	7	Screw(M2×2)	CBA1250
	8	Screw(M2×5)	CBA1296
	9	Screw(M2×3.85)	CBA1362
	10	Spring	CBH1916
	11	Spring	CBH1724
	12	Spring	CBH1727
	13	Spring	CBH1729
	14	Spring	CBH1730
	15	Spring	CBH1731
	16	Spring	CBH1732
	17	Spring	CBH1736
	18	Spring	CBH1745
	19	Spring	CBH1832
	20	Spring	CBH1833
	21	Spring	CBH1848
	22	Spring	CBH1849
	23	Spring	CBH1863
	24	Spring	CBL1214
	25	Spring	CBL1269
	26	Connector(CN1)	CDE4576
	27	PU Unit	CGY1070
	28	Roller	CLA2627
	29	Frame	CNC5796
	30	Frame	CNC5797
	31	Arm	CNC5799
*	32	Arm	CNC5801
	33	Bracket	CNC5871
	34	Lever	CNC6054
	35	Bracket	CNC6056
*	36	Bracket	CNC6376
	37	Spacer	CNM3315
	38	Sheet	CNM4849
	39	P.C.Board	CNP4230
	40	Bearing	CNR1415
	41	Belt	CNT1071
	42	Damper	CNV3974
	43	Arm	CNV4120
	44	Arm	CNV4122
	45	Arm	CNV4123
	46	Arm	CNV4124
	47	Arm	CNV4125
	48	Gear	CNV4128
	49	Gear	CNV4129
	50	Gear	CNV4130
	51	Gear	CNV4131
	52	Arm	CNV4136
	53	Holder	CNV4663
	54	Arm	CNV4138
	55	Arm	CNV4139
	56	Clamper	CNV4140
	57	Holder	CNV4664
	58	Guide	CNV4484
	59	Roller	CNV4509
	60	Chassis Unit	CXA8561
	61	Arm Unit	CXA8565
	62	Lever Unit	CXA8567
	63	Screw Unit	CXA8699
	64	Gear Unit	CXA8701
	65	Load Motor Unit(M3)	CXA8702
	66	CRG Motor Unit(M2)	CXA8986
	67	Motor Unit(M1)	CXA9101
	68	Screw	JFZ20P025FMC
	69	Connector(CN101)	CKS1953
	70	Connector(CN701)	CKS2774
	71	Connector(CN801)	CKS2196
*	72	Gathering P.C.Board	CNX2445
	73	Photo-transistor(Q1, 2)	CPT-230S-X
	74	Sheet	CNM4873
	75	Cushion	CNM3917
	76	Connector(CN702)	CKS2191
	77	Screw	JGZ17P025FZK

13. PACKING METHOD

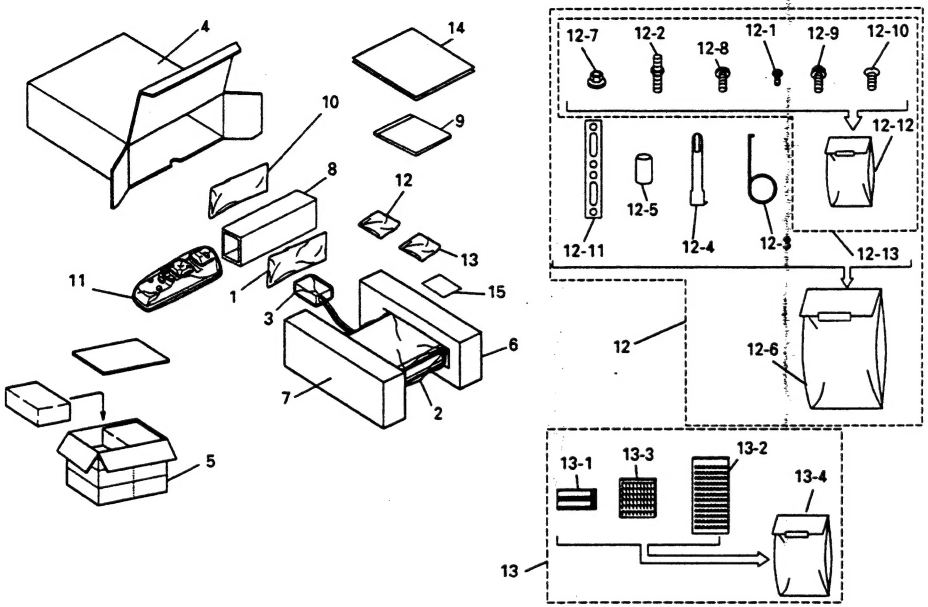


Fig.27

● **Owner's Manual**
● **Installation Manual**

Part No.	Model	Language
CRD1928	DEH-P825R/EW	English,Spanish
CRD1929	DEH-P825R/EW	German,French
CRD1989	DEH-P825R/EW	Italian,Dutch
CRD2034	DEH-P825R/EW	English,Italian,French,German,Dutch,Spanish
CRD1931 CRD1979	DEH-P825/UC	English,French
CRD1932	DEH-P823/ES	English,Arabic
CRD1980	DEH-P823/ES	English,French,Spanish,Arabic
CRD1990	DEH-P823/ES	French,Spanish
CRD1930 CRD1978	DEX-P99/UC	English,French

DEH-P825R,P825,P823,DEX-P99

● **Parts List**

*:Non Spare Part

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825/UC Part No.	DEH-P823/ES Part No.	DEX-P99/UC Part No.
	1	Cord Assy	CDE4648	CDE4976	CDE4648	•••••
		Cord	•••••	•••••	•••••	CDE4970
	2	Polyethylene Bag	CEG-162	CEG1173	CEG-162	CEG1173
	3	Air Cushioned Bag	CEG1192	CEG1192	CEG1192	CEG1192
	4	Carton	CHG2831	CHG2834	CHG2832	CHG2833
	5	Contain Box	CHL2831	CHL2834	CHL2832	CHL2833
	6	Protector(R)	CHP1766	CHP1766	CHP1766	CHP1766
	7	Protector(L)	CHP1767	CHP1767	CHP1767	CHP1767
	8	Spacer	CHW1433	CHW1433	CHW1433	CHW1433
	9	CD	CPJ1004	•••••	CPJ1004	•••••
	10	Case Assy	CXA7194	CXA7194	CXA7194	CXA7194
	11	Remote Control Assy	CXA7610	CXA7610	CXA7610	CXA7610
	12	Accessory Assy	CEA2065	CEA2066	CEA2067	CEA2066
	12-1	Screw(M2x6)	CBA1120	CBA1120	CBA1120	CBA1120
	12-2	Screw	CBA1284	CBA1284	CBA1284	CBA1284
	12-3	Spring	CBH-865	CBH-865	CBH-865	CBH-865
	12-4	Handle(x2)	CNC4947	CNC4947	CNC4947	CNC4947
	12-5	Bush	CNV1009	CNV1009	CNV1009	CNV1009
*	12-6	Polyethylene Bag	E36-615	CEG-158	CEG-158	CEG-158
	12-7	Nut(x2)	•••••	NF50FMC	•••••	NF50FMC
	12-8	Screw(x4)	•••••	TRZ50P080FMC	TRZ50P080FMC	TRZ50P080FMC
	12-9	Screw	•••••	CBA-102	•••••	CBA-102
	12-10	Screw(x4)	•••••	CRZ50P090FMC	CRZ50P090FMC	CRZ50P090FMC
	12-11	Strap	•••••	CNF-111	•••••	CNF-111
*	12-12	Polyethylene Bag	•••••	CEG-127	CEG-127	CEG-127
	12-13	Screw Assy	•••••	CEA2068	CEA2069	CEA2068
	13	Accessory Assy	CEA2081	CEA2081	CEA2081	CEA2081
	13-1	Battery	CEX1006	CEX1006	CEX1006	CEX1006
	13-2	Fastener(Soft)	CNM3729	CNM3729	CNM3729	CNM3729
	13-3	Fastener(Rough)(x2)	CNM4256	CNM4256	CNM4256	CNM4256
*	13-4	Polyethylene Bag	E36-615	E36-615	E36-615	E36-615
	14-1	Polyethylene Bag	CEG1116	CEG1116	CEG1116	CEG1116
	14-2	Owner's Manual	CRD1928	CRD1931	CRD1932	CRD1930
	14-3	Owner's Manual	CRD1929	•••••	•••••	•••••
	14-4	Installation Manual	CRD2034	CRD1979	CRD1980	CRD1978
	14-5	Owner's Manual	CRD1989	•••••	CRD1990	•••••
*	14-6	Passport	CRY1013	•••••	•••••	•••••
*	14-7	Warranty Card	CRY1087	•••••	•••••	CRY1070
*	14-8	Card	•••••	ARY1048	•••••	•••••
	14-9	Chart	•••••	CRB1375	•••••	CRB1374
*	14-10	Caution Card	•••••	•••••	•••••	CRP1144
*	15	Caution Card	CRP1145	CRP1145	CRP1145	CRP1145

PIONEER
The Art of Entertainment

Service Manual

ORDER NO.
CRT1821

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH RDS TUNER

DEH-P825R X1B/EW

COMPACT disc DIGITAL AUDIO

● **This additional service manual is designed to be used together with Model DEH-P825R/EW Service Manual CRT1805. Refer to it for finding parts numbers and adjustment,etc. which are not shown in this manual.**

PACKING METHOD

● **Parts List(Page 88)** ***:Non Spare Part**

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	1	Cord Assy	CDE4648	UDE4648
	2	Polyethylene Bag	CEG-162	UEG-002
	4	Carton	CHG2831	UHG-045
	5	Contain Box	CHL2831	UHD-002
	6	Protector(R)	CHP1766	UHP-009
	7	Protector(L)	CHP1767	
	12	Accessory Assy	CEA2065	UEA2065
	12-4	Handle(x2)	CNC5395	CNC4947
*	12-6	Polyethylene Bag	E36-615	CEG-127
	13	Accessory Assy	CEA2081	UEA2081
	13-1	Battery	CEX1006	UEX1006
	13-2	Fastener(Soft)	CNM3729	UNM3729
	13-3	Fastener(Rough)(x2)	CNM4256	UNM4256
	14-1	Polyethylene Bag	CEG1116	UEG1116
	14-2	Owner's Manual	CRD1928	URD1928
	14-3	Owner's Manual	CRD1929	URD1929
	14-4	Installation Manual	CRD2034	URD2034
	14-5	Owner's Manual	CRD1989	URD1989
	14-6	Passport	CRY1013	* CRY1014
*	14-7	Warranty Card	CRY1087	URY1087
*		Caution Card	CRD1145	URP1145

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 501 Orchard Road, #10-00, Lane Crawford Place, Singapore 0923

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DEH-P825R X1B/EW

COMPACT disc DIGITAL AUDIO

● This additional service manual is designed to be used together with Model DEH-P825R/EW Service Manual CRT1805. Refer to it for finding parts numbers and adjustment,etc. which are not shown in this manual.

PACKING METHOD

● Parts List(Page 88) *:Non Spare Part

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	1	Cord Assy	CDE4648	UDE4648
	2	Polyethylene Bag	CEG-162	UEG-002
	4	Carton	CHG2831	UHG-045
	5	Contain Box	CHL2831	UHD-002
	6	Protector(R)	CHP1766	UHP-009
	7	Protector(L)	CHP1767	
	12	Accessory Assy	CEA2065	UEA2065
	12-4	Handle(x2)	CNC5395	CNC4947
*	12-6	Polyethylene Bag	E36-615	CEG-127
	13	Accessory Assy	CEA2081	UEA2081
	13-1	Battery	CEX1006	UEX1006
	13-2	Fastener(Soft)	CNM3729	UNM3729
	13-3	Fastener(Rough)(x2)	CNM4256	UNM4256
	14-1	Polyethylene Bag	CEG1116	UEG1116
	14-2	Owner's Manual	CRD1928	URD1928
	14-3	Owner's Manual	CRD1929	URD1929
	14-4	Installation Manual	CRD2034	URD2034
	14-5	Owner's Manual	CRD1989	URD1989
	14-6	Passport	CRY1013	* CRY1014
*	14-7	Warranty Card	CRY1087	URY1087
*		Caution Card	CRD1145	URP1145

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ELECTRICAL PARTS LIST

● **Parts List(Page 29)**

Tuner Amp Unit

Circuit Symbol & No.	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
D502,672,941,991	MA151WK	DAN202K
S601	CSG1046	USG1046
C880	CSZSR100M10	*****

Key Board Unit

Circuit Symbol & No.	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
R4946,4947,4948,4949,4950	RS1/4S151J	RS1/4S391J
R4951,4952,4959,4960	RS1/4S151J	RS1/4S391J
R4961,4962	RS1/2S241J	RS1/2S471J

EXPLODED VIEW AND PARTS LIST

CHASSIS

● **Parts List(Page 82)**

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	6	Cord Assy	CDE4648	UDE4648
	21	Tuner Amp Unit	CWX1923	UWX1923
	25	CD Mechanism Module	CXK5011	UXK5011
	30	Handle	CNC5395	CNC4947
	40	Inverter Unit	CWM4531	UWM4531
	44	Antenna Cable	CDH1146	UDH1146
	64	Detach Grille Assy	CXA8200	UXA8200
	65	Panel Assy	CXA8711	UXA8711
	86	Key Board Unit	CWM4471	UWM4471
	111	Cord	CDE4387	UDE4387
	118	Connector	CNV4430	UNV4430

CD MECHANISM MODULE

● **Parts List(Page 86)**

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	1	Control Unit	CWX1964	UWX1964

DEH-P825R

ELECTRICAL PARTS LIST

● **Parts List(Page 29)**

Tuner Amp Unit

Circuit Symbol & No.	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
D502,672,941,991	MA151WK	DAN202K
S601	CSG1046	USG1046
C880	CSZSR100M10	*****

Key Board Unit

Circuit Symbol & No.	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
R4946,4947,4948,4949,4950	RS1/4S151J	RS1/4S391J
R4951,4952,4959,4960	RS1/4S151J	RS1/4S391J
R4961,4962	RS1/2S241J	RS1/2S471J

EXPLODED VIEW AND PARTS LIST

CHASSIS

● **Parts List(Page 82)**

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	6	Cord Assy	CDE4648	UDE4648
	21	Tuner Amp Unit	CWX1923	UWX1923
	25	CD Mechanism Module	CXK5011	UXK5011
	30	Handle	CNC5395	CNC4947
	40	Inverter Unit	CWM4531	UWM4531
	44	Antenna Cable	CDH1146	UDH1146
	64	Detach Grille Assy	CXA8200	UXA8200
	65	Panel Assy	CXA8711	UXA8711
	86	Key Board Unit	CWM4471	UWM4471
	111	Cord	CDE4387	UDE4387
	118	Connector	CNV4430	UNV4430

CD MECHANISM MODULE

● **Parts List(Page 86)**

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	1	Control Unit	CWX1964	UWX1964